

FLORISTIC STUDIES IN NORTH CENTRAL NEW MEXICO, U.S.A.
THE SANGRE DE CRISTO MOUNTAINS

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ABSTRACT

This represents the second of two papers covering the floristic diversity of North Central New Mexico. It reports on results from the Sangre de Cristo Mountains, as well as adjacent lands administered by the State of New Mexico, the Bureau of Land Management, the Picuris and Taos Indian Reservations, and some other private lands. The first paper covered the Jemez and Tusas ranges on the west side of the Rio Grande. For the sake of continuity, the two papers are treated as self-contained companion works. The goal is to enumerate results of the most intensive floristic inventory ever conducted in New Mexico. Here we report on 15,298 numbered collections of vascular plants from an area covering over 1.3 million acres (526,000 ha) (the sum of the entire area covering more than 3.7 million acres (1.5 million ha) is 35,857 new collections). A total of 1226 unique taxa, including 144 infraspecies and 8 hybrids, are documented from 98 families. Of these, 129 are exotics (12 are designated as noxious in New Mexico), 18 are species of conservation concern, 23 represent first reports or their confirmation for New Mexico, and finally 12 are endemic to New Mexico. Based on verified material from the University of New Mexico herbarium, 121 additional unique taxa are included in the Annotated Checklist; thus the grand total is 1347.

RESUMEN

Este es el segundo de los artículos que cubren la diversidad florística del centro norte de Nuevo México. Se señalan los resultados de las montañas Sangre de Cristo, así como tierras adyacentes administradas por el estado de Nuevo México, La Oficina de Gestión del Territorio, las Reservas Indias de Picuris y Taos, y algunos otros territorios privados. El primer artículo cubrió las cordilleras de Jemez y Tusas en el lado oeste de Rio Grande. Por el bien de la continuidad, los dos artículos se tratan como compañeros. Su objetivo es enumerar resultados del inventario florístico más exhaustivo llevado a cabo en Nuevo México. Se citan aquí 15,298 colecciones numeradas de plantas vasculares de un área de más de 1.3 millones de acres (526,000 ha) (la suma total del área cubre más de 3.7 millones de acres (1.5 millón de ha) con 35,857 nuevas colecciones). Se documentan un total de 1226 taxa únicos, incluyendo 144 táxones infraespecíficos y 8 híbridos, de 98 familias. De ellos, 129 son exóticos (12 se designan como nocivos en Nuevo México), 18 son especies con rango de conservación, 23 representan nuevas citas o su confirmación para Nuevo México, y finalmente 12 son endémicas de Nuevo México. Basados en material verificado del herbario de la Universidad de Nuevo México, se incluyen 121 taxa únicos adicionales en el Catálogo anotado; llegando a un total de 1347.

INTRODUCTION

We report on botanical inventories in the eastern portions of the Carson National Forest (CNF) and the Santa Fe National Forest (SFNF) by Jill Larson (2008) and Brian Reif (2006), respectively. Included are surrounding public lands administered by the State of New Mexico as well as the Bureau of Land Management, the Picuris and Taos Pueblo Indian Reservations, and some other private lands (Fig. 1). As these segments of the two forests are defined as the portions occurring east of the Rio Grande, it is restricted to the Sangre de Cristo Mountains.

This is the second paper on federal and adjoining lands in north central New Mexico. The first focused on the Jemez and Tusas Mountains and included the Valles Caldera National Preserve and Bandelier National

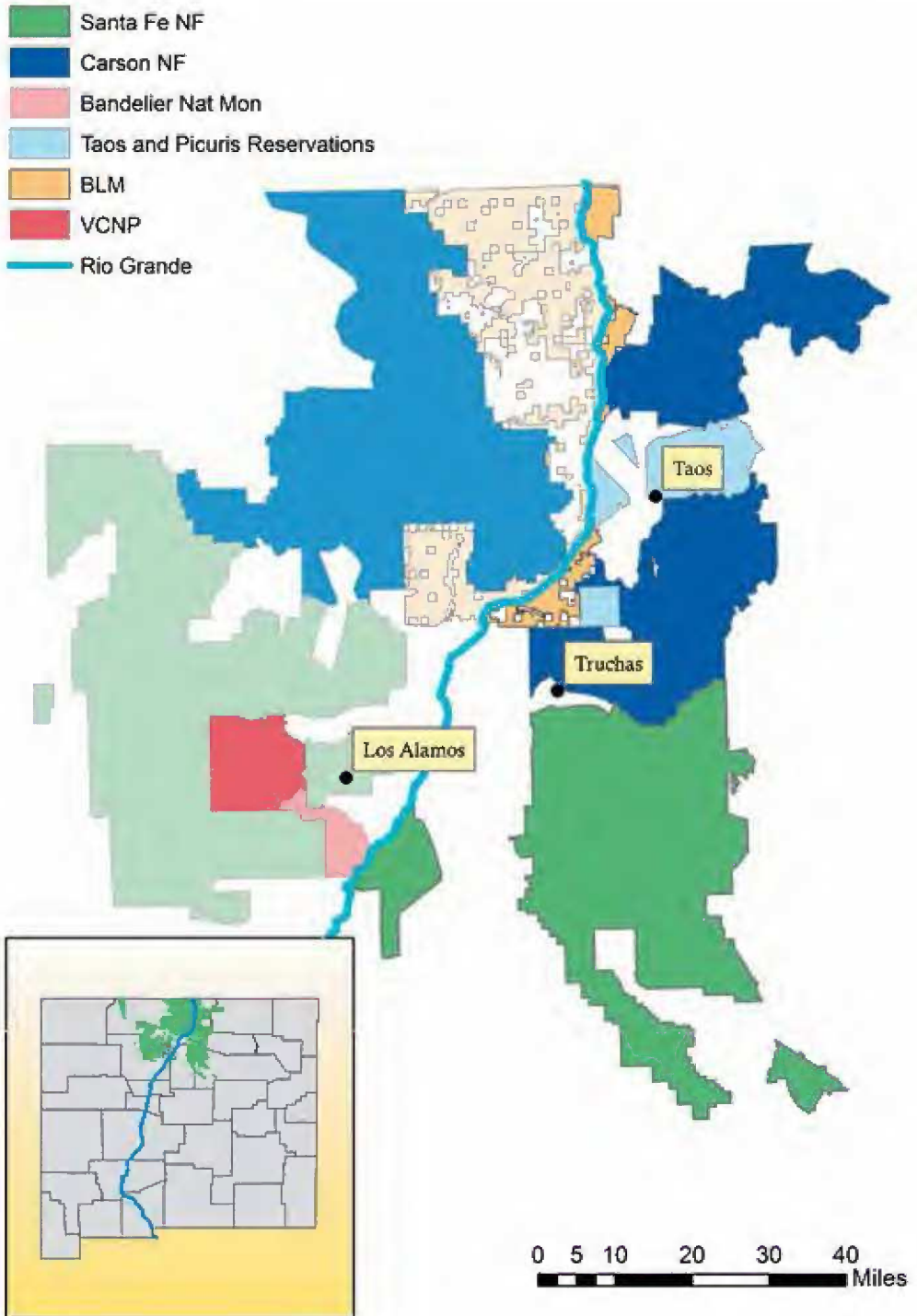


FIG. 1. Location of entire study area in north central New Mexico. This paper covers floristic research conducted to the east of the Rio Grande. Lands to the west of the river (in more muted colors) are treated in the companion paper (Reif et al. 2009). The location of selected towns and villages are indicated and federal agency and tribal lands are delineated (see legend, upper left corner of plate).

Monument (Reif et al. 2009). For the sake of continuity, *the two papers are treated as self-contained companion works.*

The geographic area covered in this paper is over 1.3 million acres (526,000 ha) (the area inventoried as a whole in the two thesis projects was over 3.7 million acres (1.5 million ha). Included are western Colfax, western San Miguel, western Mora, southeastern Rio Arriba, northeastern Santa Fe, and eastern Taos counties. The area ranged from just below 5500 feet (1686 m) in Anton Chico, (the extreme southeastern portion of the area) to 13,161 ft (4000 m) on Wheeler Peak, the highest point in New Mexico.

These botanical inventories are part of the larger effort by the Rocky Mountain Herbarium (RM) to map in relatively fine detail the geographic distribution of species based on vouchered specimens and to produce a flora of the greater Rocky Mountain region (Hartman 1992; Hartman et al. 2009; Hartman & Nelson 2008). To this end, 61 major floristics inventories (49 as master's degree projects) have been conducted during the past 35 years in Arizona, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming. Over 680,000 new collections have been obtained by graduate students, staff, and research associates of RM. These specimens form the core of the RM Plant Specimen Data Base (830,000 specimen records, 90,000 specimen images, and 4000 field photos) (Hartman et al. 2009).

Topography.—A majority of the area is within the Southern Rocky Mountain Region (Fenneman 1931). To the north, in Colorado, this region is divided by the headwaters of the Rio Grande, thus forming the treeless San Luis Valley. Here the mountains to the west are the San Juans, those to the east, the Sangre de Cristos. The eastern division extends to the south from Colorado into New Mexico as a continuous range to the east of the Rio Grande River. The southern terminus of the Sangre de Cristo Mountains, near Santa Fe, dissolves into a land of mesas and plains. The surficial geology is largely metamorphic and volcanic, but areas covered by sedimentary formations are also present. On the west side of the Rio Grande, the San Juans extend southeast from Colorado and are known locally as the Tusas Mountains separated to the south from the Jemez Mountains and the Sierra Nacimiento by the Rio Chama.

The Taos Plateau is a broad basin and the southern extension of the San Luis Valley of Colorado in the northern portion of the valley of the Rio Grande. It is peppered with volcanic cones some of which rise 3000 ft (914 m) or more above the surrounding desert grass-shrublands. To the south, the Rio Grande Rift is the portion constricted by the mountains and formed by the Embudo Fault (Muehlberger 1978; Muehlberger & Muehlberger 1982).

Climate.—The climate of north central New Mexico is arid in the lowlands, becoming moister as one ascends in elevation. Precipitation is significantly affected by the North American monsoon. The monsoon results in a seasonal pattern of precipitation with a primary maximum during July, August, and September. Strong diurnal cloud cover and precipitation accompany this season. This corresponds with the peak convective heating during the day leading to frequent afternoon thunderstorms (Sheppard et al. 1999). The mountains exert strong orographic effects on precipitation in direct relationship to elevation, while temperature is inversely related. New Mexico receives 30 to 40 percent of its annual precipitation during the summer months.

Winter tends to be drier, with a secondary maximum of precipitation occurring November through March (Sheppard et al. 1999). Winter precipitation is hydrologically important as winter snowpack recharges surface and ground water (Redmond 2003).

On the west side of the Sangres, from north to south, the annual precipitation is about 13 in (33 cm) at Cerro (elevation 7592 ft; 2314 m), 12 in (30 cm) at Taos (6952 ft; 2219 m), 10 in (25 cm) at Española (5589 ft; 1703 m), 14 in (36 cm) at Santa Fe (6989 ft; 2130 m), and 16 in (41 cm) at Pecos (6923 ft; 2110 m). On the east side of the project area, from north to south, the annual precipitation is about 21 in (53 cm) at Red River (8650 ft; 2636 m), 15 in (38 cm) at Eagle Nest (8095 ft; 2467 m), 24 in (61 cm) at Gascon (8045 ft; 2452 m), and about 16 in (41 cm) at Las Vegas (6430 ft; 1960 m) (Western Regional Climate Center 2008). There is no long-term climate data for higher elevations in the mountains.

Drought during a portion of this study had an impact on collecting. Dry conditions were particularly severe in 2002 and 2003 and again in 2006 until the monsoons developed in late July and early August.

Geology and geomorphology.—The current landscape of the Southern Rocky Mountain Region is mainly a product of the Laramide Orogeny (late Cretaceous into the Tertiary (Eocene epoch), 70 to 55 million years ago (mya) that produced the Sangre de Cristos and (to the west of the Rio Grande) the Nacimientos. This uplifting of the Precambrian core caused a warping of the overlying sedimentary strata (anticline). Subsequent volcanism, erosion, infill, and subsidence are recurring themes throughout the region. Furthermore, many older rock types of igneous origins have been uplifted and exposed as a result of the complex geological history. Now, many summits of the Sangre de Cristo consist of Precambrian rocks (to 1.78 billion years old).

The Taos Plateau is the youngest geologic area. It is a broad, relatively flat surface formed by basaltic lava flows. These flows issued from hundreds of volcanic vents during the Pliocene (Lipman 1978; Chronic 1987). The larger shield volcanoes are still present on the Plateau and include Ute Mountain, to the east of the Rio Grande and San Antonio Mountain, to the west. Rocks from some vents date back 2.2–1.8 mya.

The Rio Grande Rift proper is a major break in the earth's crust where large slivers (grabens) between two faults subsided around 30 mya. The rift extends from Colorado south into northern Mexico and is estimated to have been nearly 5 miles in depth (Chronic 1987). Prior to the Pliocene volcanism, the Rift filled with erosive deposits from the surrounding mountains. Around Taos it is still actively subsiding relative to the Sangre de Cristo Mountains (Muehlberger & Muehlberger 1982).

The Rio Grande became a through-flowing river during the Pliocene, having overcome containment in a succession of closed basins within the Rift (Chronic 1987). On the Taos Plateau, it is now confined to a narrow, deeply cut canyon called the Rio Grande Gorge. The gorge is up to 800 ft in depth. The east side of the gorge is marked by alluvium from the Sangre de Cristo Mountains (NMBGMR 2003).

The geology of the Sangre de Cristo Mountains is complex. All of the higher landforms were glaciated repeatedly during the Pleistocene epoch (Chronic 1987). The glaciers shaped more than 60 cirques in the southern Sangre de Cristo Mountains, although many are now below treeline (Miller 1963).

The northern portion is an intricate patchwork of volcanic and metamorphic rocks known as the Taos Range. This range includes the highest and most rugged peaks in the Sangre de Cristo Mountains in New Mexico. Wheeler Peak, the highest point in New Mexico at 13161 ft, is here located. The range is composed of exposed Precambrian granitic rocks with remnants of intrusive silicic rocks and basaltic andesites of Tertiary age (NMBGMR 2003). Faulting is common and adds to the geologic complexity (Shilling 1956). Volcanic activity that shaped the Taos Range is evidenced by the ancient Questa caldera and the Latir volcanic field, which were active during the Oligocene (25 mya; Meyer 1990). A molybdenum (moly) mine now occupies the Questa caldera. Along the east-west trending fault just northeast of Taos, the geology changes to sedimentary formations. This surface is an artifact of Pennsylvanian "skin," leaving the older Precambrian core covered. These sedimentary strata cover a vast area to the south.

The Picuris Mountains are Precambrian quartzite and schist that together with Cerro Azul, on the west side of the Rio Grande, form a constriction. At this point the Rio Grande Rift takes a decided shift to the west (NMBGMR 2003). Here a major fault has brought the Precambrian rocks upward in line with the Pennsylvanian strata in the mountains to the east (Bauer & Ralser 1995). Like the Tusas Mountains to the west of the Rio Grande, the Picuris Mountains experienced volcanism during the middle-Tertiary resulting in thick deposits of Picuris Tuff (Miller 1963).

At the south end, the Sangres contains thick sedimentary deposits from the Pennsylvanian Period (310–280 mya). These deposits may be up to 2700 ft in thickness north of Pecos and extend more than 20 miles (38 km) to the north (Sutherland & Montgomery 1975). This forms a tongue of sedimentary strata flanked by Precambrian rock (Chronic 1987). Approximately 26 miles to the north of Pecos in the Truchas Mountains is Truchas Peak at an elevation of 13102 ft (3993 m).

METHODS

Field work on the Carson and Santa Fe National Forests was conducted during the summers of 2002 through 2006, whereas work on the portion to the west of the Rio Grande was begun a year earlier (Valles Caldera Na-

tional Preserve). Also on the west side of the river, Brian Jacobs conducted an inventory of Bandelier National Monument from 1986 through 1988 (herbarium now housed at University of New Mexico). These studies combined represent the most extensive and exhaustive floristic surveys ever conducted in New Mexico.

Botanists have been roaming the country sides throughout the world for centuries, documenting the riches of floristic diversity. In keeping with the tradition of field botanists, collecting sites were selected and searched based on the researcher's judgment. Thus, the "meander search" strategy was employed (Goff et al. 1982; Hartman 1992; Ristau 1998; Hartman & Nelson 2008). As sites were selected subjectively, the result was the exploration of a much greater diversity of plant communities, soil types, geologic substrates, and topography leading to the documentation of a substantially greater diversity of taxa.

A total of 845 waypoints (each a geographic coordinate determined using a GPS unit) are represented in this paper (for the two thesis projects as a whole, the total was 1542; Fig. 2). Each waypoint represents a general location for collecting plant specimens, usually within one-half mile (either as a radius from a point or a trail segment defined by two successive points; notes on community types were recorded). Details concerning collections as followed in all RM studies are found in Hartman (1992) and Hartman & Nelson (2008).

This paper is based on 15,298 collections from the Sangre de Cristo Mountains and vicinity (total number of collections obtained for the two thesis projects and the Bandelier National Monument was 35,857 collections). This document does not include the northeastern portion of the Sangres in New Mexico. Here, the contiguous Vermejo Park Ranch was surveyed by Legler (2010) who obtained 7503 specimens (912 mi²; 236,206 ha). A portion of the adjoining Cimarron Range, Philmont National Scout Ranch, was inventoried in 1968 where 1200 collections were taken (210 mi²; 54,389 ha) (Hartman et al. 2009). A complete set of vouchers from CNF and SFNF as well as the adjoining areas are housed at RM. All authors have made major contributions to the collection, identification, and verification of specimens, as well as the writing of this paper.

RESULTS AND DISCUSSION

The following sections will emphasize the results of research in the Sangre de Cristo Mountains and vicinity with some discussions on various topics. Past discussion referred to the Carson and Santa Fe National Forests to the west of the Rio Grande (Reif et al. 2009), thus this companion paper completes coverage of these forests.

VEGETATION TYPES

New Mexico's vegetation has been divided and described in a number of studies at various spatial scales. The most relevant to this inventory is Dick-Peddie (1993, see Table 12.2). Vegetation types reported here are based on the application and condensation of the above-mentioned classification as confirmed or modified by our field observations. We report 16 vegetation types with five broad physiognomic and zonal categories. These may foster an understanding of the amplitude, common associates, and environmental requirements of the taxa documented by these floristic inventories.

Alpine

Alpine fellfield and meadow.—Alpine vegetation occurs in the Sangre de Cristo Mountains above upper treeline. This varies considerably, but generally occurs between 11,100 and 12,000 ft (3380–3650 m) in elevation. The lower boundary is in contact with Krummholz or dwarfed conifers. Included in this broad category are fellfield cushion plant communities, talus slopes, moist to wet meadows, islands of dwarf shrub, alpine lakes, and small stream drainages. As expected, the species composition of New Mexico's alpine vegetation bears greatest affinity to the main Rocky Mountain Cordillera, implicating a north-south migration as the source of many of its species (Billings 1988; Pase 1994). Consequently, alpine vegetation is regarded as a unit. It is also acknowledged, however, that site conditions greatly affect species composition, and a significant and unrelated component of the flora may be derived from lower elevation. Here is found the most southern alpine area, Lake Peak just northeast of Santa Fe, in the Rocky Mountain Cordilleran.

At least 31 taxa were found exclusive to this vegetation type. These include *Artemisia pattersonii*, *A. scopulorum*, *Carex rupestris*, *Castilleja haydenii*, *Cymopterus alpinus*, *Delphinium alpestre*, *Elymus scribneri*, *Eritrichium nanum*, *Paronychia pulvinata*, *Primula angustifolia*, *Synthyris alpina*, *Tonestus pygmaeus*, and *Trifolium na-*

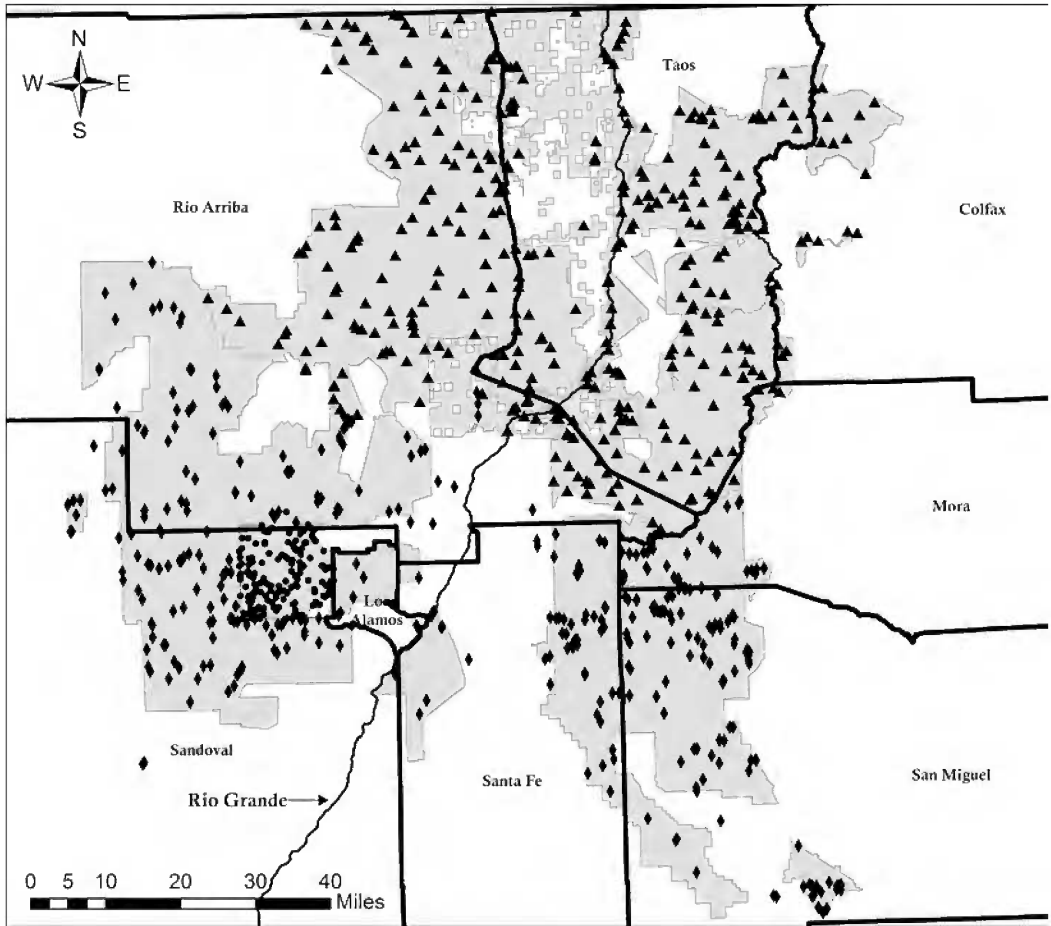


FIG. 2. Map of north central New Mexico counties included in the entire study along with 1542 plant collecting waypoints. Triangles are collecting waypoints associated with the Carson NF portion of the project, diamonds with the Santa Fe NF, and dots with the Valles Caldera NP. The current paper covers floristic research east of the Rio Grande (shown as the thinner black line), while the companion paper (Reif et al. 2009) covers lands west of the river (see Fig. 1).

num. These taxa demonstrate varying distribution patterns regionally. Some are common throughout the Rocky Mountains, while others are restricted to the southern region. This applies to *Castilleja haydenii* and one of the species of conservation concern, *Delphinium alpestre*, both known only from north central New Mexico and adjacent Colorado.

Forests and Woodlands

Bristlecone pine woodland.—These woodlands, fairly limited in distribution, consist of widely spaced, short-conical individuals of *Pinus aristata* occurring above 10,000 ft (3050 m) on dry, rocky, exposed slopes and ridges in surrounding subalpine spruce-fir forests (Peet 1988; Pase & Brown 1994a). Principal associates of this “scree forest” are *Ribes montigenum* and *Saxifraga bronchialis* (Alexander & Ronco 1987). Bristlecone pine woodland also occurs on deep soils bordering meadows and in association with *Festuca thurberi* (Alexander & Ronco 1987). Understory species associated with both subalpine forest and alpine include *Castilleja miniata*, *Eremogone fendleri*, *Festuca idahoensis*, *Helianthella parryi*, *Juniperus communis*, *Luzula spicata*, *Pedicularis racemosa* var. *alba*, *Phleum alpinum*, *Trifolium attenuatum*.

Spruce-fir forest.—These forests occur in subalpine habitats above 9500 ft (2890 m) or on cooler and more moist slopes at somewhat lower elevations. *Picea engelmannii* and *Abies arizonica* are codominants, although *Picea pungens* may occur as seral on moist sites (Moir 1993; Pase & Brown 1994a). In the upper 1000 ft (304 m) *Picea engelmannii* typically is the sole tree. Scattered stands of *Populus tremuloides* may be present in disturbed areas. Conifers of lower elevations, such as *Abies concolor*, *Pinus flexilis*, and *Pseudotsuga menziesii* may be present in low numbers. Associated shrubs and subshrubs include the abundant and often “impenetrable” *Juniperus communis*, as well as *Lonicera involucrata*, *Dasiphora fruticosa*, *Ribes wolfii*, *Rubus parviflorus*, *Salix scouleriana*, *Sambucus racemosa*, and *Vaccinium myrtilloides*. Associated graminoid species are not well represented but may include *Bromus ciliatus*, *Deschampsia cespitosa*, and *Trisetum montanum*. Frequently encountered forbs are *Actaea rubra*, *Castilleja sulphurea*, *Cymopterus lemmonii*, *Erigeron eximius*, *E. coulteri*, *Goodyera oblongifolia*, *Ligusticum porteri*, *Packera sanguisorboides*, *Pedicularis racemosa*, *Penstemon whippleanus*, *Pyrola minor*, *Solidago simplex*, and *Viola canadensis*.

Mixed conifer forest.—Mixed conifer forest occurs throughout the upper montane, roughly between 8000 and 10,000 ft (2440–3050 m). *Pseudotsuga menziesii* and *Abies concolor* are the most widespread and important conifers. *Picea pungens* is restricted to locations subject to cold-air drainage including lower slopes and drainages while *Pinus ponderosa* and *Pinus strobiformis* are found in xeric sites at lower elevations (DeVelice et al. 1986 Moir 1993). The mixed conifer forest is a mix of conifers thus reflecting the heterogeneous landscape.

Common understory shrubs and subshrubs are *Acer glabrum*, *Arctostaphylos uva-ursi*, *Berberis repens*, *Holodiscus dumosa*, *Jamesia americana*, *Juniperus communis*, *J. scopulorum*, *Paxistima myrsinites*, and *Physocarpus monogynus*. Forbs are represented by *Allium cernuum*, *Aquilegia elegantula*, *Artemisia franserioides*, *Castilleja miniata*, *Cymopterus lemmonii*, *Erigeron subtrinervis*, *Fragaria vesca*, *Helianthella parryi*, *Hymenoxys hoopesii*, *Lathyrus leucanthus*, *Lithospermum multiflorum*, *Packera fendleri*, *Potentilla gracilis*, *Solidago simplex*, *Thalictrum fendleri*, and *Thermopsis rhombifolia*, while frequent graminoids include *Agrostis scabra*, *Bromus porteri*, *B. richardsonii*, *Carex geophila*, *C. occidentalis*, *C. siccata*, *Elymus trachycaulus*, *Muhlenbergia montana*, and *Oryzopsis asperifolia*.

Fire has created a natural mosaic within this vegetation type, with burns ranging from patchy, low intensity to stand replacing fires (Moir 1993; USDA, Forest Service 1997).

Ponderosa pine forest.—In the Sangre de Cristo Mountains, warmer and dryer conditions from 6700–9000 ft (2040–2740 m) support this forest type, often forming homogenous stands. At its upper limits, *Pinus ponderosa* and mixed conifer forests intergrade, while at its lower limit it merges into piñon-juniper woodland. Where trees are large and scattered the forests may be open and park-like with predominately grasses and forbs. This is especially true along the western side as well as in the southeastern portions of the range. Disturbance patterns in ponderosa pine forest include frequent, low intensity understory fires (DeVelice et al. 1986; Moir 1993; USDA, Forest Service 1997).

Representative subshrubs and shrubs include *Berberis repens*, *Ceanothus fendleri*, *Cercocarpus montanus*, *Fallugia paradoxa*, *Juniperus communis*, *Quercus gambelii*, *Rhus trilobata*, *Ribes cereum*, *R. inerme*, *R. leptanthus*, *Rosa acicularis*, *R. woodsii*, and *Symphoricarpos rotundifolius*. Forbs are represented by *Achillea millefolium*, *Antennaria parvifolia*, *Cymopterus lemmonii*, *Erigeron flagellaris*, *Heterotheca villosa*, *Lithospermum multiflorum*, *Lupinus argenteus*, *Penstemon barbatus*, and *Vicia americana*, while common graminoids include *Blepharoneuron tricholepis*, *Carex inops* ssp. *heliophila*, *Elymus elymoides* var. *brevifolius*, *Festuca arizonica*, *Koeleria macrantha*, *Muhlenbergia montana*, and *Poa fendleriana*.

Piñon-juniper woodland.—*Pinus edulis* and *Juniperus monosperma* are dominant in the foothills largely on the western and southeastern side of the Sangre de Cristo Mountains where it forms a discontinuous transitional belt (6000–8500 ft; 1830–2590 m). It is characteristic of escarpments such as Glorieta Mesa where coarse, rocky soil and enhanced infiltration produces moister site conditions (Dick-Pettie 1993). Piñon-juniper woodlands represent the lowest elevation forest type. Piñon forms closed woodlands at the upper elevational ranges, whereas juniper occurs in savanna-like communities at the lower elevational range and interface with grasslands. *Juniperus scopulorum* commonly occurs with piñon at higher elevations in mesic settings and has

recently encroached into ponderosa pine understory due to absence of fire disturbance (USDA, Forest Service 1997). Understory conditions are dynamic and vary with canopy cover, soil conditions, and land use and fire history (West 1999).

Shrub cover is variable and includes *Quercus gambelii* and *Q. undulata*, but also *Artemisia tridentata*, *Cercocarpus montanus*, *Gutierrezia sarothrae*, *Fallugia paradoxa*, *Ribes cereum*, and *Rhus trilobata*. Frequently encountered forbs are *Castilleja integra*, *Chaetopappa ericoides*, *Chamaesyce fendleri*, *Cryptantha cinerea*, *Eriogonum jamesii*, *Gaillardia pinnatifida*, *Hymenoxys richardsonii*, *Lappula occidentalis*, *Oenothera suffrutescens*, *Sphaeralcea coccinea*, *Tetranneuris argentea*, and several succulents including *Cylindropuntia imbricata*, *Opuntia phaeacantha*, *O. polyacantha*, and *Yucca* spp. Common graminoids are *Achnatherum hymenoides*, *Aristida purpurea*, *Bouteloua curtipendula*, *B. gracilis*, *Carex geophila*, *Elymus elymoides* var. *brevifolius*, *Hesperostipa comata*, *Hilaria jamesii*, *Koeleria cristata*, *Muhlenbergia torreyi*, *Piptatherum micranthum*, and *Poa fendleriana*.

Historic impacts in woodlands are extensive and include fuel harvest and grazing (Moir 1993). Bark beetle (*Ips confusus*) outbreaks associated with drought stress have resulted in high levels of piñon mortality (Santos & Whitham 2010).

Shrublands

Montane Shrubland.—These shrublands are found throughout the Sangre de Cristo Mountains. They are distributed in a patchy manner in ponderosa pine forests and piñon-juniper woodlands. Areas of montane shrubland are often too limited in extent for mapping because they are produced by site-specific factors: disturbance, substrate, and patterns of moisture. Comparably drier and more rocky sites are typical of montane shrubland, although some associates such as *Prunus virginiana* and *Ptelea trifoliata* are found in areas of increased moisture such as small catchments (Dick-Peddie 1993).

Included in this classification of montane shrubland are thick stands of *Quercus gambelii*. This species occurs on soils that are poorly developed and xeric (Brown 1994), and have also been regarded as seral association indicative of past disturbance. Also included here is the “climax” shrubland of Dick-Peddie (1993) or *Cercocarpus montanus* in association with *Amelanchier alnifolia*, *Philadelphus microphyllus*, *Quercus undulata*, and *Rhus trilobata*. Other shrubs include *Ceanothus fendleri*, *Holodiscus dumosus*, *Jamesia americana*, *Juniperus communis*, *Physocarpus monogynus*, *Ribes cereum*, *R. inerme*, *Rubus parviflorus*, *Sambucus racemosa*, and *Symphoricarpos rotundifolius*. Grass and forb species are those of surrounding montane forests and woodlands.

Desert shrubland.—There are two subtypes that fit this descriptor. The first is found along the Pecos River and in a large area of the Taos Plateau, but less so on the east side of the Rio Grande. This subtype is characterized by the absence of *Artemisia tridentata* and the presence of number of other shrubs. Included are *Atriplex canescens*, *Chrysothamnus Greenei*, *Ericameria nauseosa*, and *Gutierrezia sarothrae*. Grass cover is often sparse but may include *Achnatherum hymenoides*, *Aristida purpurea*, *Bouteloua gracilis*, *Elymus smithii*, and *Muhlenbergia torreyi*. Forbs are also scanty, yet represented by *Castilleja integra*, *Chaetopappa ericoides*, *Eriogonum jamesii*, *Hedeoma drummondii*, *Lappula occidentalis*, and *Thelesperma megapotamicum*.

The second subtype is dominated by *Artemisia tridentata* var. *tridentata*. It most often occurs in glades within piñon-juniper woodlands. *Atriplex canescens*, *Cylindropuntia imbricata*, *Ericameria nauseosa*, and *Rhus trilobata* are common woody associates. Grasses include *Agropyron cristatum*, *Bromus tectorum*, *Elymus elymoides* var. *brevifolius*, *Hilaria jamesii*, and *Muhlenbergia richardsonis*. Common forbs are *Chaetopappa ericoides*, *Echinocereus coccineus*, *Lappula occidentalis*, *Opuntia polyacantha*, and *Plantago patagonica*.

Grasslands

Montane meadow and grassland.—This vegetation type occurs from about 8500 ft (2590 m) to the highest summits. Transitions between forest and grassland vegetation are often abrupt at the upper elevations where grasslands may represent a climax condition, or are typically gradual at lower elevations where trees can encroach under heavy grazing or have been excluded by past fire (Peedie 1993). Common forbs include *Achillea millifolium*, *Agoseris aurantiaca*, *Allium cernuum*, *Campanula rotundifolia*, *Castilleja miniata*, *Frasera speciosa*, *Hymenoxys hoopesii*, *Linum lewisii*, *Mirabilis melanotricha*, and *Silene scouleri*. Graminoids vary with moisture and, to a lesser degree, elevation. Moist sites frequently include *Carex microptera*, *C. nova*, *Deschampsia cesp-*

tosa, *Phleum pratense*, and *Poa pratensis*. Drier meadows are characterized by *Bromus porteri*, *Festuca arizonica*, *Koeleria macrantha*, and *Blepharoneuron tricholepis*.

Plains-desert grassland.—This vegetation type is ecotonal to piñon-juniper woodlands, juniper woodlands, or juniper savannas. Desert grassland occurs primarily along the Rio Grande Rift often up slope to the piñon-juniper woodland. It has a significant shrub and forb cover. Characteristic grasses are *Achnatherum hymenoides*, *Aristida purpurea*, *Bouteloua gracilis*, *B. curtipendula*, *Elymus smithii*, *Hesperostipa comata*, and *Hilaria jamesii*, while frequently encountered forbs are *Antennaria microphylla*, *A. rosea*, *Castilleja integra*, *Cryptantha* spp., *Glandularia bipinnatifida*, *Grindelia squarrosa*, *Oenothera coronopifolia*, *O. suffrutescens*, *Opuntia polyacantha*, *O. phaeacantha*, *Ratibida tagetes*, *Sphaeralcea coccinea*, *Teucrium lacinata*, and *Zinnia grandiflora*.

Wetlands

Montane Riparian.—Margins of perennial and intermittent streams support unique species assemblages. Montane riparian vegetation is found in moist areas within spruce-fir and mixed conifer forests. As with montane meadows, the species composition follows an elevational gradient (Dick-Peddie 1993). A rich diversity of herbaceous and woody vegetation is present. Obligate and facultative riparian species of trees and shrubs can be arranged along a descending gradient: *Picea pungens*, *Salix amygdaloides*, *S. bebbiana*, *S. irrota*, *Alnus incana*, *Acer glabrum*, *Cornus sericea*, *Populus angustifolia*, and *Acer negundo*. Additional facultative riparian trees and shrubs include *Populus tremuloides* and *Prunus virginiana*. Among the rich diversity of forbs are *Aconitum columbianum*, *Caltha leptosepala*, *Cardamine cordifolia*, *Dodecatheon pulchellum*, *Equisetum arvense*, *Geum macrophyllum*, *Heracleum maximum*, *Hypericum scouleri*, *Mertensia franciscana*, *Mimulus guttatus*, *Oxypolis fendleri*, *Pedicularis groenlandica*, *Saxifraga odontoloma*, *Sedum rhodanthum*, *Veronica americana*, and species of *Epilobium*, *Potamogeton*, *Ranunculus*, and *Salix*. Graminoids are represented by *Alopecurus aequalis*, *Deschampsia cespitosa*, *Glyceria grandis*, *G. striata*, *Juncus arcticus*, *Torreyochloa pallida*, and species of *Agrostis*, *Carex*, and *Eleocharis*.

Floodplain-arroyo riparian.—This type of vegetation occurs at lower elevations on floodplains along the Rio Grande and the lowest elevations of the Sangres. Many species that thrive here are well adapted to disturbance and dry conditions with periodic flooding. The most common dominant is *Populus deltoides*, with understory shrubs *Baccharis salicina*, *Ericameria nauseosa*, *Fallugia paradoxa*, *Forestiera pubescens*, *Rhus trilobata*, and *Salix exigua*. The exotics *Elaeagnus angustifolia* and *Tamarix chinensis* have proliferated and may persist in a subclimax state (Dick-Peddie 1993; Minckley & Brown 1994). Arroyo riparian is common to desert shrubland and may grade into montane riparian.

Marsh-lacustrine.—The marsh-lacustrine riparian habitat is found around ponds and springs, in otherwise arid habitats such as piñon-juniper woodland or desert grassland where the water table remains sufficiently high or in various montane vegetation types. Along the shoreline, *Limosella aquatica*, *Potentilla anserina*, *P. norvegica*, *Ranunculus cymbalaria*, *Rorippa* spp., and *Rumex crispus* may be encountered. Emergents include *Scirpus microcarpus*, *Sparganium emersum*, *Typha latifolia* and species of *Carex*, *Eleocharis*, *Juncus*, and *Schoenoplectus*. Floating and submersed taxa include *Callitriche palustris*, *Potamogeton* spp., *Lemna minor*, *Elo-dea canadensis*, and *Ranunculus aquatilis*.

Disturbed

Aspen seral forest.—*Populus tremuloides*, an important seral species and post fire increaser, is widely distributed in the Rocky Mountains (Peet 1988). Pure stands of this shade-intolerant species arise through root sprouting following disturbances (Pase & Brown 1994b). Scattered individuals are also found in late-succession or near climax stages in forest types and lower subalpine spruce-fir forests (Moir 1993). However, like many successional communities, aspen forms a distinct assemblage that may persist for long periods of time. Aspen are found in the various coniferous forest types throughout the Sangre de Cristo Mountains.

Forbs include *Campanula rotundifolia*, *Castilleja miniata*, *Chamerion angustifolia*, *Geranium richardsonii*, *Ligusticum porteri*, *Pseudostellaria jamesiana*, and *Thalictrum fendleri*, while frequently encountered grasses include *Bromus carinatus*, *B. richardsonii*, *Festuca arizonica*, *Poa fendleriana*, and *P. pratensis*.

Burn Areas.—Natural and anthropogenic fires have been frequent in most of the vegetation types men-

tioned above. This is true for most of the Sangre de Cristo Mountains. In many areas, the vegetation is in various states of succession. While fire is important ecologically, natural succession is often compromised by exotics. Several major burns have occurred in the Sangres.

Roadside-agricultural.—Here, native vegetation may be largely replaced by exotic and agricultural species. Noxious weeds collected along roads include *Aegilops cylindrica*, *Cirsium vulgare*, *Convolvulus arvensis*, *Lepidium latifolium*, *Linaria dalmaticum*, and *Ulmus pumila*. Weedy or agricultural plants include *Avena sativa*, *Helianthus annuus*, *Salsola tragus*, *Sisymbrium altissimum*, *Tragopogon dubius*, and species of *Ambrosia*, *Bromus*, *Chamaesyce*, *Chenopodium*, *Elymus*, *Lappula*, *Lepidium*, *Medicago*, *Melilotus*, *Plantago*, *Polygonum*, and *Trifolium*. Roadsides often act as corridors for exotics and thus warrant monitoring.

NOXIOUS WEEDS

Invasive plant species that are particularly damaging or prolific are regulated as noxious weeds (USDA, NRCS 2013). A specific goal of our floristic inventories was to document noxious weeds for the purpose of assisting in monitoring and control efforts. Of the 35 taxa listed in New Mexico, 13 were encountered at 91 sites. They are *Acroptilon repens*, *Aegilops cylindrica*, *Carduus nutans*, *Centaurea stoebe* ssp. *micranthos*, *Cirsium arvense*, *C. vulgare*, *Convolvulus arvensis*, *Elaeagnus angustifolia*, *Lepidium latifolium*, *Linaria dalmatica*, *L. vulgaris*, *Tamarix chinensis*, and *Ulmus pumila*. The first of these noxious weeds is based on a specimen at University of New Mexico. Noxious weeds and other exotics are indicated in the Annotated Checklist by a ● or an *, respectively.

TAXA OF CONSERVATION CONCERN

Another primary goal of the inventories was to document the occurrence of rare and endemic taxa. A total of 18 species of conservation concern were documented from 83 sites in the Sangre de Cristo Mountains and vicinity. These species of conservation concern are listed by Natural Heritage New Mexico (2012) and the New Mexico Rare Plant Technical Committee (2012) as such. The list is arranged alphabetically and each is followed by family name, county of occurrence, and collector and associated voucher number(s). They are indicated by a ♦ in the Annotated Checklist.

Astragalus cyaneus (Fabaceae) Taos: Hartman 80544b
Astragalus iodopetalus (Fabaceae) Taos: Larson 4946, 5711, 7140
Astragalus puniceus var. *gertrudis* (Fabaceae) Taos: Hartman 80541; Larson 5293
Calochortus gunnisonii var. *perpulcher* (Liliaceae) Mora, San Miguel: Reif 3026, 7232, 7299, 7614
Cornus canadensis (Cornaceae) Taos: Larson 2799, 8035
Cypripedium parviflorum (Orchidaceae) San Miguel: Reif 6219
Delphinium alpestre (Ranunculaceae) Taos: Larson 2945, 3004, 3393, 8991
Delphinium sapellonis (Ranunculaceae) Mora, San Miguel, Taos: Nelson 65919, 66309, 69383; Reif 3011, 3773, 4038, 7323, 7641, 8682, 8779, 8934, 10286
Hackelia hirsuta (Boraginaceae) Colfax, Mora, San Miguel, Taos: Larson 2303, 3093, 8186, 10626; Nelson 69141, 69442; Reif 3157
Herrickia horrida (Asteraceae) Colfax: Larson 10028

Iliamna grandiflora (Malvaceae) Taos: Larson 5404, 5470, 5848
Parnassia fimbriata (Parnassiaceae) Taos: Larson 3972, 4070, 9775, 9877
Podistera eastwoodiae (Apiaceae) Taos: Larson 1579, 1784a, 1842, 2937, 2982, 3015, 4022, 7989, 8080, 9009, 9966, 10310; Reif 8102, 10214
Salix arizonica (Salicaceae) Mora: Reif 10294
Saxifraga cernua (Saxifragaceae) Santa Fe: Reif 10294
Selaginella weatherbiana (Selaginellaceae) Rio Arriba, San Miguel, Taos: Hartman 76708, Larson 2509, 10291, Reif 3111, 3876, 6107, 7441, 8089
Synthyris alpina (Plantaginaceae) Taos: Hartman 81340, Larson 720, 1589, 1769, 2991, 8153
Trifolium brandegeei (Fabaceae) Taos: Hartman 81284, Larson 1582, 3978, 4061, 4214, 7212b, 7664, 7687, 8127

SUMMARY OF TAXA

The first number represents results based on our fieldwork. Parenthetical numbers following most of the former are those verified from UNM. The two adjacent numbers below “Exotic taxa” represent the percent of exotics when compared to total unique taxa.

A total of 1226 unique taxa, including 144 infraspecies and 8 hybrids, are documented from 98 families. Of these, 129 are exotics (12 are designated as noxious in New Mexico), 18 are species of conservation concern, 23 represent first reports or their confirmation for New Mexico, and finally 12 are endemic to New Mexico. Based on verified material from the University of New Mexico herbarium, 121 additional unique taxa are included in the Annotated Checklist; thus the grand total is 1347.

List by taxonomic category		List by special category	
Families	98 (103)	Exotic taxa	129 (148)
Genera	475 (514)	Percent exotic taxa	10.5 (11)
Species	1147 (1263)	NM Noxious weeds	12 (13)
Hybrids	8	Taxa conservation concern	18
Infraspecies	144 (149)	NM Endemic taxa	12 (13)
		State records	23
Unique taxa	1226 (1347)		

List of unique taxa by major plant group

Fern Allies	11 (21)
Ferns	18 (18)
Gymnosperms	13
Angiosperms	1184 (1295)
Total	1226 (1347)

CONCLUSIONS

This paper represents the second of two contributions that cover the floristic diversity of north central New Mexico (for the portion west of the Rio Grande, see Reif et al. 2009). The area here covered encompasses the Sangre de Cristo Range, as well as adjacent lands administered by the State of New Mexico, the Bureau of Land Management, the Picuris and Taos Indian Reservations, and some other private lands. We report on results of 15,298 numbered collections of vascular plants (total for the two publications covering more than 3.7 million acres is 35,857 numbered new collections). A total of 1226 (1347) unique taxa, 144 (149) including infraspecies as well as 8 hybrids, are documented from 98 (103) families. With the addition of 121 taxa (totals within verified from RM and UNM), the total for unique taxa rise to 1347. Of these, 129 (148) are exotic taxa of which 12 (13) are designated as noxious in New Mexico, 18 are species of conservation concern, 23 represent first reports or their confirmation for New Mexico, and 12 (13) are endemic to the state.

THE ANNOTATED CHECKLIST

The checklist is divided into major plant groups (ferns and fern allies, gymnosperms, and angiosperms) each with alphabetical listing by family and species. Nomenclature follows Allred (2012). In some cases (71) it follows that of an antiquated checklist compiled by the staff of the RM. In order to provide an easy “cross walk” between the companion floristic treatments, that name is maintained between the two and the name used in Allred 2012 is placed in square brackets [] below the alternate name. The original sources used in identification were relevant state and regional treatments and monographs with comparison to authenticated material, where possible, in the RM.

Following is a guide to format and abbreviations associated with individual taxa in the checklist. Except for records based on specimens at RM, the citation of the vouchers are omitted. This is justified as collection data are available online (Hartman et al. 2009; Symbiota 2013). In the case of *Botrychium*, all specimens were collected by Ben Legler on his own.

Taxon Authority (project on the Carson NF or the Santa Fe NF) [3, 9 or 6,-]; COUNTY; elevational range in ft; **GEOLOGIC AREA**; habitat type.

[*Taxon* Authority, name accepted by Allred]

One other attribute includes specimens seen only at the University of New Mexico, [UNM-R. Sivinski 3910]

County abbreviations:

A SAn Miguel
 C Colfax
 M Mora
 R Rio Arriba
 S Santa Fe
 T Taos

Geologic area:

G Rio Grande Rift
 L Great PLains
 P Taos Plateau
 S Sangre de Cristo Mountains

Habitat type:

af Aspen seral forest	mm Montane meadow and grassland
am Alpine fellfield and meadow	mr Montane riparian
br Burns	ms Montane shrubland
bw Bristlecone pine woodland	pg Plains-desert grassland
ds Desert shrubland	pj Piñon-juniper woodland
fr Floodplain-arroyo riparian	pp Ponderosa pine forest
mc Mixed conifer forest	ra Roadside-agricultural
ml Marsh-lacustrine wetland	sf Spruce-fir forest

Symbols by category preceding Taxon:

* Exotic species to New Mexico
 ● Noxious weed in New Mexico
 ♦ Species of conservation concern
 + Endemic to New Mexico
 ! State record for New Mexico
 × Hybrid

FERNS AND FERN ALLIES**Aspleniaceae**

Asplenium resiliens Kunze [1,-] A; 5500'; S; fr.
Asplenium trichomanes L. [1,-] A; 8900–9500'; S; mc.

Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn var. *pubescens* Underw. [15,4] A, C, M, S, T; 7720–10500'; S; af, mc, mm, mr, pp, sf.

Dryopteridaceae

Athyrium filix-femina (L.) Roth ex Mert. var. *californicum* Butters [4,3] A, S, T; 8300–10500'; S; mr.
Cystopteris fragilis (L.) Bernh. [12,18] A, M, R, S, T; 7740–12700'; S; am, bw, mc, mm, mr, sf.
Cystopteris reevesiana Lellinger [24,24] A, C, M, S, T; 7620–12000'; S; bw, mc, mr, sf.
Dryopteris filix-mas (L.) Schott [7,3] A, C, M, T; 7650–10500'; S; mc, mr, pp.
Gymnocarpium dryopteris (L.) Newman [-,1] T; 8450–9600'; S; mr.
Woodsia neomexicana Windham [2,2] R, S, T; 6840–11200'; P, S; bw, fr, pp.
Woodsia oregana D.C. Eaton var. *cathcartiana* (B.L. Rob.) Morton [1,4] A, C, T; 7400–12450'; P, S; am, ds, mc.
Woodsia plummerae Lemmon [-,1] T; 7400–7550'; P; pj.

Equisetaceae

Equisetum arvense L. [15,24] A, C, M, R, S, T; 5781–9700'; G, P, S; fr, ml, mm, mr, ra, sf.
 × *Equisetum xfernissii* Clute [1,2] S, T; 7760–9400'; S; mm, mr.
Equisetum hyemale L. var. *affine* (Engelm.) A.A. Eaton [8,9] A, C, M, S, T; 7350–10500'; S; mc, mm, mr.
Equisetum laevigatum A. Braun [7,18] A, C, M, R, S, T; 5781–9700'; G, L, P, S; fr, mc, ml, mm, mr, ra, sf.

× *Equisetum xnelsonii* (A.A. Eaton) J.H. Schaffn. [-,1] T; 5781'; G; fr.

Lycopodiaceae

Huperzia lucidula (Michx.) Trevis. [UNM-C. Dixon A-289] S; S.
Lycopodium annotinum L. [UNM-N. Osborn 1079] T; S.

Ophioglossaceae

Botrychium echo W.H. Wagner [UNM-B. Legler 11545] T; S.
Botrychium hesperium (Maxon & R.T. Clausen) Wagner & Lellinger [RM, UNM-B. Legler 11553] T; S.
Botrychium lanceolatum (Gmel.) Ångstr. [RM-B. Legler 11567] C; S.
Botrychium lineare W.H. Wagner [RM, UNM-B. Legler 11556] T; S.
Botrychium "neolunaria" in ed. [RM, UNM-B. Legler 11584A] S; S.
Botrychium minganense Vict. [RM, UNM-B. Legler 11609] T; S.
Botrychium pinnatum H.St. John [RM, UNM-B. Legler 11582] S; S.
Botrychium tunux Stevensvold & Farrar [RM, UNM-B. Legler 11555] T; S.

Pteridaceae

Argyrochosma fendleri (Kunze) Windham [1,5] R, S, T; 5800–7550'; G, P, S; ds; fr.
Cheilanthes eatonii Baker [4,2] A, C, T; 5560–8450'; S; fr, pj, pp.
Cheilanthes feei T. Moore [2,-] A; 5650–7150'; S; mr, pj.
Cheilanthes fendleri Hook. [2,1] A, S, T; 7600–8640'; S; mc, ms, pp.
Cryptogramma acrostichoides R. Br. [2,6] M, R, T; 9600–12000'; S; am, bw, mc, mm, sf.
Notholaena standleyi Maxon [2,-] A; 5560–5840'; S; pj.
Pellaea atropurpurea (L.) Link [1,-] A; 5500'; S; pj.

Selaginellaceae

Selaginella densa Rydb. var. *densa* [1,16] A, T; 7050–12700'; P, S; am, ds, mc, mm.

- Selaginella mutica* D.C. Eaton ex Underw. var. *limitanea* Weatherby [-,1] T, 7600–8450'; **S**; pp.
Selaginella mutica D.C. Eaton ex Underw. var. *mutica* [1,-] S; 6540'; **S**; fr.
Selaginella peruviana (Milde) Hieronymus [1,-] A; 5630'; **S**; fr.
Selaginella underwoodii Hieronymus [2,-] A, M; 7900–9760'; **S**; mc, sf.
 ♦ *Selaginella weatherbiana* R. Tryon [6,2] A, R, S, T; 7750–13024'; **S**; am, mc.

GYMNOSPERMS

Cupressaceae

- Juniperus communis* L. var. *depressa* Pursh [34,43] A, C, M, R, S, T; 7620–12430'; **P**, **S**; af, bw, mc, mm, ms, mr, pp, sf.
Juniperus monosperma (Engelm.) Sarg. [15,18] A, R, S, T; 5560–8720'; **G**, **L**, **P**, **S**; ds, fr, mr, ms, pj.
Juniperus scopulorum Sarg. [14,44] A, C, M, R, S, T; 6050–10500'; **G**, **P**, **S**; ds, fr, mc, ml, mm, ms, mr, pj, pp, ra.

Pinaceae

- Abies arizonica* Merriam [15,29] A, C, M, R, S, T; 8500–12400'; **S**; mc, mm, mr, sf.
Abies concolor (Gord. & Glend.) Hildebr. [32,34] A, C, M, R, S, T; 7600–10500'; **P**, **S**; af, mc, mm, mr, pj, pp.
Picea engelmannii Parry ex Engelm. var. *engelmannii* [20,24] A, C, M, R, S, T; 7720–12300'; **S**; am, af, bw, mc, mm, mr, sf.
Picea pungens Engelm. [22,23] A, C, M, R, S, T; 6840–12000'; **S**; mc, mm, ms, mr, sf.
Pinus aristata Engelm. [8,21] A, C, M, S, T; 9375–13000'; **S**; am, bw, mc, mm, mr, sf.
Pinus edulis Engelm. [28,29] A, C, M, R, S, T; 5560–10000'; **G**, **P**, **S**; br, ds, fr, mc, mm, ms, pj, pp, ra.
Pinus flexilis E. James [13,10] A, M, S, T; 7740–11209'; **P**, **S**; mc, mr, ms, sf.
Pinus ponderosa Douglas ex P. Lawson & C. Lawson var. *scopulorum* Engelm. [28,29] A, C, M, R, S, T; 5500–9920'; **P**, **S**; af, br, fr, mc, mm, ms, mr, pj, pp, ra.
 [Pinus scopulorum (Engelm.) Lemmon]
Pinus strobiformis Engelm. [8,5] A, C, M, S, T; 7720–10150'; **S**; mc, mm, mr.
Pseudotsuga menziesii (Mirb.) Franco var. *glauca* (Beissn.) Franco [32,38] A, C, M, R, S, T; 6600–11150'; **P**, **S**; af, br, mc, mm, ms, mr, pj, pp.

ANGIOSPERMS

Aceraceae [as Sapindaceae]

- Acer glabrum* Torr. var. *glabrum* [29,41] A, C, M, R, S, T; 7320–11300'; **S**; br, mc, mm, ms, mr, ra, sf.
 [Acer glabrum Torr. var. *neomexicanum* (Greene) Kearns. & Peeb.]
Acer negundo L. var. *interius* (Britton) Sarg. [5,6] A, S, T; 5781–8000'; **L**, **P**, **S**; fr, mr, pj, ra.

Adoxaceae

- Adoxa moschatellina* L. [UNM-R. Sivinski 3910] S; **S**.
Sambucus caerulea Raf. var. *neomexicana* (Woot.) Rehder [UNM-C. Dixon A-285] S; **S**.
Sambucus racemosa L. var. *melanocarpa* (A. Gray) McMinn [3,-] M, S; 9840–12000'; **S**; mm, mr.
Sambucus racemosa L. var. *microbotrys* (Rydb.) Kearns. & Peeb. [18,21] A, C, M, R, S, T; 7840–11500'; **S**; br, mc, mm, mr, sf.

Agavaceae [includes Nolinaceae]

- Nolina greenii* S. Watson [3,-] A; 5700–5800'; **L**; pj.
Yucca angustissima Engelm. ex Trelease var. *angustissima* [3,-] A, R; 5730–6620'; **G**, **L**, **S**; ds, pj.

Yucca baccata Torr. var. *baccata* [9,6] A, R, S, T; 6036–9450'; **G**, **P**, **S**; ds, fr, mc, pj.

Yucca baileyi Wooton & Standl. var. *baileyi* [3,-] A, S; 6200–7460'; **L**, **S**; pg, pj.

+ *Yucca intermedia* McKelvey [-,4] R, T; 6050–8150'; **G**, **P**, **S**; br, fr, pj, pp.

[Y. baileyi Wooton & Standl. var. *intermedia* (McKelvey) Reveal; see Sivinski 2008]

Yucca neomexicana Wooton & Standl. [2,-] A, S; 5700–6540'; **G**, **L**; pj.

Alismaceae

Sagittaria cuneata E. Sheld. [UNM-E. Castetter 4792] T; **S**.

Alliaceae [traditionally in Liliaceae]

Allium cernuum Roth [37,35] A, C, M, R, S, T; 7000–11700'; **P**, **S**; af, br, bw, fr, mc, mm, ms, mr, pj, pp, ra, sf.

Allium geyeri S. Watson var. *geyeri* [10,7] A, M, S, T; 8100–12700'; **S**; am, bw, mc, mm, ms, mr, pp, sf.

Allium geyeri S. Watson var. *tenerum* M.E. Jones [1,7] M, T; 9250–11100'; **S**; mm, mr.

Allium macropetalum Rydb. [1,-] A; 6200'; **L**; pg, pj.

Amaranthaceae

Amaranthus albus L. [1,1] A, T; 5610–7450'; **L**, **S**; fr, ra.

* *Amaranthus blitoides* S. Watson [UNM-H. Mackay 6T-55] T; **S**.

Amaranthus powellii S. Watson [3,4] A, C, M, S, T; 7300–9400'; **S**; fr, mm, mr, ra.

* *Amaranthus retroflexus* L. [3,-] A, S; 6840–8000'; **S**; mm, mr.

Guilleminea densa (Humb. & Bonpl. ex Willd.) Moq. var. *aggregata* Uline & Bray [2,-] A; 5630–5800'; **L**; fr, pj.

Anacardiaceae

Rhus glabra L. [1,-] A; 7900'; **S**; mr, ms.

Rhus trilobata Nutt. var. *trilobata* [10,18] A, C, M, R, S, T; 5600–8450'; **G**, **L**, **P**, **S**; ds, fr, ms, mr, pj, ra.

Toxicodendron rydbergii (Small ex Rydb.) Greene [6,2] A, R, S, T; 5800–8300'; **G**, **L**, **P**, **S**; fr, mc, ml, mm, mr.

Apiaceae

Angelica grayi (J.M. Coult. & Rose) J.M. Coult. & Rose [5,5] A, M, R, S, T; 9800–13024'; **S**; am, mm, sf.

* *Carum carvi* L. [-,1] T; 8350–9400'; **S**; mc.

Cicuta maculata L. var. *angustifolia* Hook. [2,1] A, T; 5800–8000'; **L**, **P**, **S**; fr, mr.

Conioselinum scopulorum (A. Gray) J.M. Coult. & Rose [20,14] A, C, M, R, S, T; 7000–11500'; **S**; br, mc, mr, sf.

* *Conium maculatum* L. [1,-] A; 5800'; **L**; fr.

Cymopterus alpinus A. Gray [2,2] A, T; 10000–12584'; **S**; am.

Cymopterus bakeri (J.M. Coult. & Rose) M.E. Jones [2,8] M, S, T; 11500–13000'; **S**; am.

Cymopterus constancei R.L. Hartm. [-,6] T; 6600–7500'; **P**, **S**; ds, fr, pj.

Cymopterus glomeratus (Nutt.) DC. var. *fendleri* (A. Gray) R.L. Hartm. [1,-] A; 6200'; **L**; pg, pj.

Cymopterus longilobus (Rydb.) W.A. Weber [-,3] R, T; 11600–13024'; **S**; am, sf.

[*Cymopterus hendersonii* (J.M. Coult. & Rose) Cronquist, misapplied]

Cymopterus lemmonii (J.M. Coult. & Rose) Dorn [43,69] A, C, M, R, S, T; 7550–12960'; **S**; af, am, bw, br, mc, mm, ms, mr, pp, sf.

! *Cymopterus spellenbergii* R.L. Hartm. & J.E. Larson [-,6] R, T; 6200–8763'; **G**, **P**, **S**; fr, pj, pp.

Harbouria trachypleura (S. Watson) J.M. Coult. & Rose [4,-] A, S; 7000–8000'; **S**; pj, pp.

Heracleum maximum W. Bartram [29,24] A, C, M, R, S, T; 7720–11650'; **S**; af, mc, ml, mm, mr, ra, sf.

Ligusticum porteri J.M. Coult. & Rose [18,17] A, M, S, T; 8350–11940'; **S**; af, mc, mm, mr, sf.

Osmorhiza depauperata Phil. [21,33] A, C, M, R, S, T; 7620–11800'; **S**; af, mc, mm, mr, sf.
Oxypolis fendleri (A. Gray) A. Heller [35,38] A, C, M, R, S, T; 7620–12000'; **S**; af, mc, mm, mr, sf.
 * *Pastinaca sativa* L. [-,1] T; 7240'; **S**; ra.
 ♦ *Podistera eastwoodiae* (J.M. Coult. & Rose) Mathias & Const. [2,12] M, R, S, T; 10500–13024'; **S**; am, mm, mr, sf.
Sanicula marilandica L. [1,-] S; 8600–8840'; **S**; mc.

Apocynaceae

Apocynum androsaemifolium L. [9,6] A, C, S, T; 7720–9700'; **S**; af, mc, mm, mr.
Apocynum cannabinum L. [3,4] R, S, T; 5781–7600'; **G, P, S**; fr, ml, mr, ra.
 × *Apocynum xfloribundum* Greene [4,1] A, S, T; 7720–8400'; **S**; mm, mr.
 [*Apocynum medium* Greene var. *floribundum* (Greene) Woodson]

Araliaceae

Aralia racemosa L. ssp. *bicrenata* (Wooton & Standl.) S.L. Welsh & N.D. Atwood [5,2] A, S, T; 7640–10500'; **S**; mc, mm, mr.

Asclepiadaceae

Asclepias asperula (Decne.) Woodson var. *asperula* [4,1] A, C, S; 6540–8600'; **G, S**; br, fr, pj.
Asclepias engelmanniana Woodson [1,-] A; 5570–5600'; **L**; fr.
Asclepias involucrata Engelm. ex Torr. [3,-] A; 5700–6200'; **L**; pg, pj, ra.
Asclepias latifolia (Torr.) Raf. [2,-] A; 5650–5840'; **L**; pg, pj.
Asclepias macrostis Torr. [2,-] A; 5650–5800'; **L**; pg, pj.
Asclepias oenotheroides Chamisso & Schlechtendal [1,-] A; 5700–5800'; **L**; pg, pj.
Asclepias pumila (A. Gray) Vail [UNM-Nellessen 70] A; **S**.
Asclepias speciosa Torr. [1,2] A, T; 5800–10200'; **L, S**; fr, mr, ra.
Asclepias subverticillata (A. Gray) Vail [7,2] A, M, S, T; 5500–7760'; **L, S**; fr, mm, ra.
Asclepias tuberosa L. ssp. *interior* Woodson [2,-] A; 7720–7900'; **S**; mm, ms.
Asclepias viridiflora Raf. [2,-] A; 5700–7000'; **L, S**; pg, pj, pp.
Funastrum crispum (Benth.) Schlecht. [1,-] A; 5700–5800'; **L**; pg, pj.
Matelea producta (Torr.) Woodson [2,-] A; 5700–5840'; **L**; pg, pj.

Asparagaceae [traditionally in Liliaceae]

* *Asparagus officinalis* L. [2,3] R, S, T; 6050–7860'; **P, S**; br, ml, mm, ra.

Asteraceae

Achillea millefolium L. [55,55] A, C, M, R, S, T; 6540–13024'; **G, S**; am, af, br, mc, mm, mr, pp, ra, sf.
 *● *Acroptilon repens* (L.) DC. [UNM-C.R. Hutchins 6455] T; **S**.
Ageratina herbacea (A. Gray) R.M. King & H. Rob. [1,-] A; 7900'; **S**; mc, mm.
Agoseris aurantiaca (Hook.) Greene var. *aurantiaca* [3,10] M, R, S, T; 8300–13024'; **S**; am, mc, sf.
Agoseris aurantiaca (Hook.) Greene var. *purpurea* (A. Gray) Cronquist [17,16] A, M, S, T; 8200–12200'; **S**; am, af, bw, br, mc, mm, mr, sf.
Agoseris glauca (Pursh) Raf. var. *glauca* [-,8] M, R, T; 7050–12450'; **S**; am, br, mm, mr, sf.
Agoseris parviflora (Nutt.) Greene [-,4] T; 9500–12960'; **S**; am, mm, mr.
Amauriopsis dissecta (A. Gray) Rydb. [19,11] A, C, M, R, S, T; 6840–10200'; **S**; br, fr, mc, mm, pp, ra.
Ambrosia artemisiifolia L. [2,-] A, S; 5610–7000'; **L, S**; fr, mm, ra.
Ambrosia confertifolia DC. [UNM-R. Fleetwood s.n., 3 Sept 1949] A; **S, S**.
Ambrosia psilostachya DC. [8,-] A, M, S; 5500–8575'; **L, S**; fr, mm, mr, ra.
Ambrosia tomentosa Nutt. [3,3] A, C, M, T; 7200–9700'; **S**; ml, mm, ra.
Ambrosia trifida L. var. *trifida* [-,1] T; 7240'; **S**; ra.

Anaphalis margaritacea (L.) Benth. & Hook. [4,4] A, M, R, T; 7750–11900'; **S**; mc, mm, mr, sf.
Antennaria marginata Greene [6,15] A, C, M, R, S, T; 7620–10500'; **S**; af, br, mc, mm, mr, pp, sf.
Antennaria media Greene [4,7] C, M, S, T; 7400–12850'; **S**; am, mm, sf.
Antennaria microphylla Rydb. [1,36] C, M, R, S, T; 7050–13024'; **S**; am, af, br, mc, mm, mr, pj, pp, ra, sf.
Antennaria parvifolia Nutt. [5,18] C, M, R, S, T; 6600–11115'; **G, P, S**; fr, mc, mm, mr, pj, pp.
Antennaria rosea Greene [2,26] A, M, S, T; 7740–12960'; **S**; am, br, mc, mm, mr, sf.
 [*Antennaria rosea* subspecies]
Antennaria rosulata Rydb. [-,1] T; 9850–10000'; **S**; mm.
 * *Arctium minus* (Hill) Bernh. [-,3] M, T; 7200–9400'; **S**; pj, ra.
Arnica cordifolia Hook. [-,23] R, T; 8300–11500'; **S**; br, mc, mm, mr, sf.
Arnica latifolia Bong. [UNM-R. Jackson 2206] T; **S**.
 ! *Artemisia borealis* Pall. ssp. *borealis* [-,1] T; 11500–12850'; **S**; am.
Artemisia campestris L. var. *pacifica* (Nutt.) M. Peck [-,2] C, T; 8500–9500'; **S**; pp, ra.
Artemisia carruthii A.W. Wood ex Carruth [8,22] A, M, R, S, T; 6980–10500'; **P, S**; br, mm, mr, ms, pj, ra.
Artemisia dracunculoides L. [2,2] A, C, T; 7000–8700'; **S**; br, mm, mr.
Artemisia franserioides (Greene) [12,8] A, C, M, R, T; 7840–11500'; **S**; af, mc, mm, mr, sf.
Artemisia frigida Willd. [2,5] A, C, M, T; 6750–9750'; **S**; mm, pj, ra.
Artemisia ludoviciana Nutt. var. *ludoviciana* [8,2] A, M, R, S, T; 8200–12200'; **S**; mc, mm, ms, pp.
Artemisia ludoviciana Nutt. var. *mexicana* (Willd. ex Spreng.) A. Gray [2,7] A, M, R, T; 7600–10300'; **S**; af, br, mc, mm, pj, pp, ra.
Artemisia patersonii A. Gray [-,1] T; 11500–12050'; **S**; am.
Artemisia scopulorum A. Gray [-,8] R, T; 11300–13161'; **S**; am.
Artemisia tridentata Nutt. var. *tridentata* [-,16] R, T; 6050–10100'; **G, P, S**; br, fr, pj, ra.
Artemisia tridentata Nutt. var. *wyomingensis* (Beetle & A. Young) S.L. Welsh [-,4] R, T; 5800–7650'; **G, S**; ds, fr, pj.
Baccharis pteronioides DC. [1,-] A; 5800'; **L**; fr.
Baccharis salicina Torr. & A. Gray [-,2] R, T; 5781–6540'; **G**; ds, fr, ra.
Baccharis wrightii A. Gray [1,-] S; 7320–7370'; **S**; pj.
Berlandiera lyrata Benth. [6,-] A; 5800–6200'; **L**; pg, pj.
Bidens cernua L. [-,1] C; 8194'; **S**; ml.
Bidens pilosa L. [1,-] A; 5500'; **L**; fr.
Bidens tenuisecta A. Gray [3,1] A, M; 7700–9320'; **S**; mm, ra.
Brickellia brachyphylla A. Gray [1,-] A; 7000'; **S**; pp.
Brickellia eupatorioides (L.) Shinnars var. *chlorolepis* (Wooton & Standl.) B.L. Turner [2,1] M, T; 7100–8800'; **S**; mm, pp, ra.
Brickellia grandiflora (Hook.) Nutt. [10,13] A, C, M, R, S, T; 7650–12200'; **S**; am, mc, mm, ms, mr, pp, ra, sf.
Brickellia rusbyi A. Gray [UNM-J. McGrath 737] A; **S**.
Brickelliastrum fendleri (A. Gray) King & H.E. Rob. [10,5] A, R, S, T; 6840–10100'; **P, S**; fr, mc, mm, mr, pp.
 *● *Carduus nutans* L. [5,6] A, C, M, T; 7000–9200'; **S**; mc, ml, mm, pj, ra.
 *● *Centaurea stoebe* L. ssp. *micranthos* (S.G. Gmelin ex Gugler) Hayek [1,-] A; 5500'; **L**; fr, pj.
Chaetopappa ericoides (Torr.) G.L. Nesom [15,17] A, R, S, T; 5600–8200'; **G, L, P, S**; br, ds, pg, pj, ra.
Chrysothamnus depressus Nutt. [-,1] R; 8150'; **S**; br.
Chrysothamnus Greenei (A. Gray) Greene [-,4] T; 7400–8555'; **P**; ds, fr.
 * *Cichorium intybus* L. [2,1] M, S, T; 6840–7700'; **S**; mm, ra.
 *● *Cirsium arvense* (L.) Scop. [-,12] C, T; 7350–10500'; **S**; br, ml, mc, mm, mr, ra.
 [*Cirsium arvense* varieties]
Cirsium eatonii (A. Gray) B.L. Rob. var. *ericocephalum* (A. Gray) Keil [3,5] M, S, T; 10990–12850'; **S**; am, mm.

- Cirsium neomexicanum* A. Gray [2,6] R, S, T; 6540–8900'; **G, S**; br, fr, mc, pj, pp, ra.
- Cirsium ochrocentrum* A. Gray var. *ochrocentrum* [2,-] A, S; 5760–7000'; **L, S**; mm, pg, pj.
- Cirsium parryi* (A. Gray) Petrak [27,31] A, C, M, S, T; 7400–11500'; **S**; mc, mm, mr, ra, sf.
- Cirsium scariosum* Nutt. var. *coloradense* (Rydb.) Keil [-,1] T; 8175'; **S**; ml, mm.
- Cirsium undulatum* (Nutt.) Spreng [12,7] A, C, M, S, T; 5570–9700'; **L, S**; br, fr, mc, mm, ms, pg, pj, pp, ra, sf.
- * *Cirsium vulgare* (Savi) Ten. [4,3] A, C, M, S, T; 6840–9320'; **S**; fr, ml, mm, ra.
- * *Conyza canadensis* (L.) Cronquist [7,4] A, C, S, T; 5500–8575'; **L, P, S**; br, fr, ml, mm, ra.
- Coreopsis lanceolata* L. [1,-] A; 7720'; **S**; pp.
- Coreopsis tinctoria* Nutt. [1,-] A; 7200–7240'; **S**; ra.
- Cosmos parviflorus* (Jacq.) Pers. [2,1] A, M, S; 7380–9320'; **S**; mm, ra.
- Crepis runcinata* (E. James) Torr. & A. Gray var. *runcinata* [UNM-J. Williams 7] T; **S**.
- ! *Crepis tectorum* L. [-,1] C; 8194'; **S**; ml.
- Cyclachaena xanthifolia* (Nutt.) Fresen. [1,1] A, T; 7350–8000'; **S**; ra.
- Dieteria bigelovii* (A. Gray) Morgan & R.L. Hartm. var. *bigelovii* [2,8] A, C, M, R, T; 6120–9700'; **S**; br, fr, mm, ms, pj, ra.
- Dieteria canescens* (Pursh) Nutt. var. *ambigua* (B.L. Turner) Morgan & R.L. Hartm. [1,-] A; 5800'; **L**; fr.
- Dieteria canescens* (Pursh) Nutt. var. *aristata* (Eastw.) Morgan & R.L. Hartm. [-,2] R, T; 5781–7750'; **G, S**; ra.
- Dieteria canescens* (Pursh) Nutt. var. *glabra* (A. Gray) Morgan & R.L. Hartm. [-,1] C; 7650–8600'; **S**; br.
- * *Dyssodia papposa* (Vent.) C.L. Hitchc. [1,2] M, T; 7200–7700'; **S**; mm, pj, ra.
- Engelmannia peristenia* (Raf.) Goodman & Lawson [2,-] A; 5570–5800'; **L**; fr.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *bigelovii* (A. Gray) G.L. Nesom & G.I. Baird [UNM-E. Wootton s.n., 24 Aug 1910] S; **S**.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *graveolens* (Nutt.) Reveal & Schuyler [-,1] T; 7100'; **S**; ra.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *hololeuca* (A. Gray) G.L. Nesom & G.I. Baird [-,1] T; 7700–8555'; **P**; pj.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *latisquamea* (A. Gray) G.L. Nesom & G.I. Baird [UNM-H. Bobisud 37] S; **S**.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *oreophila* (A. Nelson) G.L. Nesom & G.I. Baird [-,6] C, T; 7240–9400'; **S**; br, fr, ml, mm.
- Ericameria parryi* (A. Gray) G.L. Nesom & G.I. Baird var. *affinis* (A. Nelson) G.L. Nesom & G.I. Baird [UNM-A. Cully CU-1] T; **G**.
- Erigeron canus* A. Gray [1,-] S; 7300–7400'; **S**; pj.
- ! *Erigeron compositus* Pursh [-,1] T; 11600–12450'; **S**; am.
- Erigeron concinnus* (Hook. & Arn.) Torr. & A. Gray var. *concinnus* [-,1] T; 6950'; **P**; pj.
- Erigeron coulteri* Porter [12,26] A, M, R, S, T; 8200–12000'; **S**; mm, mr, sf.
- Erigeron divergens* Torr. & A. Gray [21,32] A, C, R, S, T; 5730–9400'; **G, L, P, S**; br, mc, mm, mr, ms, pg, pj, pp, ra.
- Erigeron elatior* (A. Gray) Greene [1,-] M; 9920–9960'; **S**; af, mm.
- Erigeron eximius* Greene [15,16] A, C, M, R, S, T; 7840–11800'; **S**; am, af, mc, mm, mr, sf.
- Erigeron flagellaris* A. Gray [29,53] A, C, M, R, S, T; 7050–11129'; **G, P, S**; af, bw, br, ds, fr, mc, mm, ms, mr, pj, pp, ra, sf.
- Erigeron formosissimus* Greene var. *formosissimus* [5,10] A, M, R, T; 7850–12000'; **S**; bw, mc, mm, mr, sf.
- Erigeron formosissimus* Greene var. *viscidus* (Rydb.) Cronquist [11,23] A, C, M, R, S, T; 7000–11750'; **S**; mc, mm, ms, mr, pp, ra, sf.
- Erigeron glabellus* Nutt. [-,1] T; 7050'; **S**; mr.
- Erigeron glacialis* (Nutt.) A. Nelson var. *glacialis* [4,6] A, M, R, T; 9700–12000'; **S**; mm, mr, sf.
- Erigeron grandiflorus* Hook. [1,9] A, R, T; 9800–13024'; **S**; am, mm, sf.
- Erigeron leiomerus* A. Gray [UNM-T. Lowrey 2082] C; **S**.
- Erigeron melanocephalus* (A. Nelson) A. Nelson [2,9] M, R, S, T; 9800–13024'; **S**; am, mm, sf.
- ! *Erigeron nivalis* Nutt. [-,1] T; 9600–10900'; **S**; sf.
- Erigeron pinnatisectus* (A. Gray) A. Nelson [-,5] R, T; 11600–13024'; **S**; am.
- Erigeron pulcherrimus* A. Heller [-,4] C, R, T; 5781–8050'; **G, S**; ds, fr, mr, pp.
- Erigeron speciosus* (Lindl.) DC. [6,1] A, M, R, S; 7700–11300'; **S**; mc, mm, ms, sf.
- + *Erigeron subglaber* Cronquist [2,-] A, M; 11310–11750'; **S**; mm.
- Erigeron subtrinervis* Rydb. ex Porter & Britton [13,35] A, C, M, S, T; 7200–12960'; **P, S**; am, af, bw, br, ds, fr, mc, mm, ms, mr, pj, pp, ra.
- Erigeron tracyi* Greene [10,11] A, R, S, T; 5700–10500'; **G, L, P, S**; br, fr, mm, pg, pj, pp, ra.
- Erigeron vetensis* Rydb. [-,22] C, R, T; 7200–12960'; **S**; am, bw, mc, mm, mr, pj, pp, sf.
- Erigeron vreelandii* Greene [6,-] A, S; 7720–9860'; **S**; af, mc, ms, pp.
- Gaillardia aristata* Pursh [-,3] C, T; 8500–11000'; **S**; mr, ra.
- Gaillardia pinnatifida* Torr. [4,1] A, T; 5570–6500'; **L, P**; pg, pj.
- Gaillardia pulchella* Foug. [3,2] A, T; 5500–10500'; **L, S**; fr, pj, ra.
- Gnaphalium exilifolium* A. Nelson [-,1] C; 8194'; **S**; ml.
- Grindelia squarrosa* (Pursh) Dunal [11,10] A, C, M, R, S, T; 5500–9320'; **L, P, S**; fr, mc, ml, mm, ms, pj, pp, ra.
- Gutierrezia sarothrae* (Pursh) Britton & Rusby [5,7] A, C, M, R, S, T; 5560–8555'; **L, P, S**; br, mm, ms, pg, pj, pp, ra.
- Helenium autumnale* L. var. *montanum* (Nutt.) Fernald [UNM-R. Wallace 92EM023-F2] M; **S**.
- Helianthella parryi* A. Gray [8,30] A, C, M, R, T; 7650–12700'; **S**; am, af, bw, mc, mm, ms, mr, pp, ra, sf.
- Helianthella quinque nervis* (Hook.) A. Gray [3,4] M, S, T; 8450–12050'; **S**; af, mc, mm, mr, sf.
- Helianthus annuus* L. [3,6] A, M, T; 5500–10500'; **L, S**; fr, mm, pj, ra.
- Helianthus nuttallii* Torr. & A. Gray [UNM-R. Wallace 92RW002-F3] T; **G**.
- Helianthus pauciflorus* Nutt. var. *subrhoibeus* (Rydb.) Cronquist [2,2] A, M, R; 7000–9320'; **S**; br, pp, ra.
- Helianthus petiolaris* Nutt. var. *petiolaris* [1,-] A; 7000'; **S**; ms, pp.
- Heliomeris multiflora* Nutt. var. *multiflora* [15,11] A, M, R, S, T; 7000–11200'; **S**; af, br, mc, mm, pp, ra, sf.
- Heliomeris multiflora* Nutt. var. *nevadensis* (A. Nelson) W.F. Yates [2,1] R, S; 7000–8400'; **S**; br, mm, pp.
- Heliopsis helianthoides* (L.) Sweet var. *scabra* (Dunal) Fernald [7,2] A, C, M, T; 7720–9400'; **S**; af, mc, pj, ra.
- ♦ *Herrickia horrida* Wootton & Standl. [-,1] C; 7800–8400'; **S**; mc.
- Heterotheca villosa* (Pursh) Shinnars var. *minor* (Hook.) Semple [14,21] A, C, M, R, S, T; 5800–10500'; **G, P, S**; br, ds, fr, mc, mm, mr, ms, pj, pp, ra.
- Heterotheca villosa* (Pursh) Shinnars var. *nana* (A. Gray) Semple [11,15] A, C, M, R, S, T; 6200–9750'; **G, P, S**; ds, fr, mc, mm, mr, pj, pp, ra.
- Heterotheca villosa* (Pursh) Shinnars var. *villosa* [10,12] A, C, M, R, S, T; 5500–9880'; **G, L, S**; br, ds, mc, mm, pj, ra.
- Hieracium fendleri* Sch. Bip. [4,8] A, C, M, R, S, T; 7850–11209'; **S**; mc, mm, mr, pp, sf.
- Hieracium pringlei* A. Gray [1,-] A; 8000'; **S**; mc, mm.
- Hieracium triste* Willd. ex Spreng. [2,9] M, R, S, T; 8450–12060'; **S**; bw, mc, mm, mr, sf.

- Hymenopappus filifolius* Hook. var. *cinereus* (Rydb.) I.M. Johnst. [8,12] A, R, S, T; 5781–7950'; **G, P, S**; ds, pj.
- Hymenopappus filifolius* Hook. var. *pauciflorus* (I.M. Johnst.) B.L. Turner [-,1] R; 6380'; **G**; fr.
- Hymenopappus flavescens* A. Gray var. *canotomentosus* A. Gray [2,-] A; 5570–5800'; **L**; fr, pj.
- Hymenopappus flavescens* A. Gray var. *flavescens* A. Gray [1,-] A; 6200'; **L**; pg, pj.
- Hymenopappus newberryi* (A. Gray) I.M. Johnst. [20,9] A, C, M, T; 7720–10700'; **S**; af, mc, mm, mr, ra.
- Hymenopappus tenuifolius* Pursh [6,-] A; 5700–7500'; **L, S**; ds, pg, pj.
- Hymenoxys brandegeei* (Porter ex A. Gray) Parker [5,11] M, R, S, T; 9800–13161'; **S**; am, mm, mr, sf.
- Hymenoxys hoopesii* (A. Gray) Bierner [20,21] A, C, M, S, T; 7850–11800'; **S**; mc, mm, mr, sf.
- Hymenoxys richardsonii* (Hook.) Cockerell var. *floribunda* (A. Gray) Parker [12,20] A, R, S, T; 5800–10500'; **G, P, S**; ds, fr, mc, mm, mr, pj, pp, ra.
- Krigia biflora* (Walter) S.F. Blake [1,-] A; 8400–8850'; **S**; mc, mm.
- ! *Lactuca biennis* (Moench) Fernald [3,-] A, S; 7760–8600'; **S**; mm, mr.
- Lactuca canadensis* L. [1,2] S, T; 7400–10500'; **S**; mm, mr.
- Lactuca graminifolia* Michx. var. *arizonica* McVaugh [2,-] A; 7720–8000'; **S**; mc, mm.
- Lactuca pulchella* (Pursh) DC. [-,2] T; 7550–9800'; **S**; ml, mm.
- * *Lactuca seriola* L. [5,16] A, C, M, S, T; 5500–10100'; **L, S**; br, fr, mm, mr, pg, pj, ra.
- Laënnecia schiedeana* (Less.) G.L. Nesom [1,-] M; 8040–8700'; **S**; mc, ra.
- Leibnitzia lyrata* (Sch.Bip.) G.L. Nesom [UNM-R. Sivinski 5763] A; **S**.
- * *Leucanthemum vulgare* Lam. [4,9] A, C, R, T; 7350–10500'; **S**; fr, ml, mm, mr, ra. [2,1] A, R; 7000–8200'; **S**; ms, pp.
- Liatris punctata* Hook. var. *punctata* [2,1] A, R; 7000–8200'; **S**; ms, pp.
- Lygodemia juncea* (Pursh) D. Don ex Hook. [2,-] A; 7200–7500'; **S**; ds, pj.
- Machaeranthera tanacetifolia* (Kunth) Nees [1,-] A; 5610'; **L**; fr.
- * *Matricaria discoidea* DC. [-,1] T; 7200'; **S**; mr.
- Melampodium leucanthum* Torr. & A. Gray [8,-] A; 5630–6750'; **L, S**; fr, pg, pj.
- Oreochrysum parryi* (A. Gray) Rydb. [20,24] A, C, M, R, S, T; 7700–12450'; **S**; am, af, mc, mm, mr, ms, pp, ra, sf.
- Packera dimorphophylla* (Greene) W.A. Weber & Á. Löve var. *dimorphophylla* [-,4] T; 9700–11500'; **S**; mr.
- Packera fendleri* (A. Gray) W.A. Weber & Á. Löve [33,35] A, C, M, R, S, T; 5781–11500'; **S**; af, bw, br, mc, mm, mr, ms, pj, pp, ra, sf.
- Packera hartiana* (A. Heller) W.A. Weber & Á. Löve [UNM-H. Mackay 6T-207] T; **S**.
- Packera multilobata* (Torr. & A. Gray ex A. Gray) Weber & Á. Löve [1,4] C, M, R, T; 7250–10500'; **S**; br, mm, pj, pp.
- Packera neomexicana* (A. Gray) W.A. Weber & Á. Löve var. *mutabilis* (Greene) W.A. Weber & Á. Löve [3,12] A, C, R, S, T; 7150–10500'; **G, S**; mc, mr, pj, pp.
- Packera pseudaurea* (Rydb.) W.A. Weber & Á. Löve var. *flavula* (Greene) D. Trock & T.M. Barkley [-,1] T; 10500–11000'; **S**; mm.
- + *Packera sanguisorboides* (Rydb.) W.A. Weber & Á. Löve [23,23] A, C, M, R, S, T; 7840–11940'; **S**; af, mc, mm, mr, sf.
- Packera streptanthifolia* (Greene) W.A. Weber & Á. Löve [1,16] R, S, T; 6600–12450'; **P, S**; am, af, br, mc, mm, mr, sf.
- Packera thurberi* (A. Gray) B.L. Turner [UNM-H. Dixon V-24] T; **S**.
- Pericome caudata* A. Gray [-,1] T; 7400–7493'; **R**; fr.
- Petradoria pumila* (Nutt.) Greene var. *pumila* [-,8] R, T; 7200–8763'; **P, S**; br, pj.
- Picradeniopsis oppositifolia* (Nutt.) Rydb. [UNM-R. Sivinski 4542] C; **S**.
- Plectocephalus americanus* (Nutt.) D. Don [1,-] A; 5650–5740'; **L**; pg, pj.
- Pseudognaphalium macounii* (Greene) Kartesz [5,-] A, M, S; 8200–10850'; **S**; mc, mm, ms.
- Pseudognaphalium stramineum* (Kunth) W.A. Weber [2,-] A, S; 7000–8000'; **S**; mc, mm, mr.
- Psilostrophe tagetina* (Nutt.) Greene [6,-] A; 5570–5840'; **L**; fr, pg, pj.
- Pyrrhopappus pauciflorus* (D. Don) DC. [2,-] A, R; 5500–6620'; **G, L**; ds, fr.
- Pyrrcoma crocea* (A. Gray) Greene var. *crocea* [4,4] A, M, R, T; 8700–11300'; **S**; mm
- Ratibida columnifera* (Nutt.) Wootton & Standl. [11,6] A, C, M, T; 5570–10300'; **L, S**; mm, pg, pj, pp, ra.
- [*Ratidiba columnifera* formas]
- Ratibida tagetes* (E. James) Barnhart [3,-] A; 5570–7240'; **L, S**; fr, pj.
- Rudbeckia hirta* L. var. *pulcherrima* Farw. [22,12] A, C, M, S, T; 6500–11500'; **P, S**; fr, mm, mr, ra.
- Rudbeckia laciniata* L. var. *ampla* (A. Nelson) Cronquist [32,10] A, C, M, S, T; 7700–10850'; **G, S**; mc, mm, mr.
- ! *Rudbeckia laciniata* L. var. *laciniata* [2,-] A, S; 7000–7750'; **S**; mm, mr.
- Sanvitalia abertii* A. Gray [UNM-R. Sivinski 2574] S; **S**.
- Schkuhria multiflora* Hook. & Arn. [UNM-R. Sivinski 1820] T; **S**.
- * *Scorzonera laciniata* L. [5,8] A, R, S, T; 5800–8200'; **G, L, P, S**; br, fr, ml, pg, pj, ra.
- Senecio amplexens* A. Gray var. *amplexens* [4,10] M, R, S, T; 9600–13024'; **S**; am, bw, mm, mr, sf.
- Senecio amplexens* A. Gray var. *holmii* (Greene) Harrington [2,3] M, R, S, T; 10990–13024'; **S**; am, sf.
- Senecio atratus* Greene [2,18] M, R, S, T; 7850–11850'; **S**; bw, mc, mm, mr, ra, sf.
- Senecio bigelovii* A. Gray var. *hallii* A. Gray [15,14] A, M, R, S, T; 7750–12000'; **S**; mc, mm, mr, sf.
- Senecio crassulus* A. Gray [2,4] M, R, S, T; 8400–13024'; **S**; am, mm, pj, sf.
- Senecio eremophilus* Richardson var. *kingii* (Rydb.) Greenm. [13,15] A, C, M, R, S, T; 7400–11500'; **S**; mc, mm, mr, sf.
- Senecio flaccidus* Less. var. *flaccidus* [8,3] A, R, T; 5610–8300'; **G, L, P, S**; fr, pg, pj, ra.
- Senecio fremontii* Torr. & A. Gray var. *blitoides* (Greene) Cronquist [3,2] M, R, S, T; 11500–13024'; **S**; am, mm.
- Senecio spartioides* Torr. & A. Gray [-,1] T; 7240'; **S**; ra.
- Senecio taraxacoides* (A. Gray) Greene [-,7] T; 11300–13161'; **S**; am.
- Senecio triangularis* Hook. [6,25] M, R, S, T; 7850–12000'; **S**; mm, mr, sf.
- Senecio woottonii* Greene [3,8] A, C, R, S, T; 7910–11209'; **S**; mc, mr, sf.
- Solidago altissima* L. ssp. *gilvocanescens* (Rydb.) Semple [1,4] A, T; 6980–10093'; **P, S**; br, mc, mm, pj, pp.
- Solidago gigantea* Aiton [2,-] A; 7750–8000'; **S**; mr, ra.
- Solidago missouriensis* Nutt. var. *fasciculata* Holz. [1,1] A, T; 7520–11200'; **S**; pp, sf.
- Solidago missouriensis* Nutt. var. *missouriensis* [1,4] A, C, T; 7650–10300'; **S**; br, mc, mm, sf.
- Solidago mollis* Bartl. [2,1] A, S, T; 7000–8260'; **S**; pp, ra.
- Solidago nemoralis* Aiton var. *decemflora* (DC.) Fernald [5,4] A, R, S, T; 7950–8880'; **S**; br, mc, mm, ms, pp.
- Solidago simplex* Kunth var. *simplex* [28,34] A, C, M, R, S, T; 7840–13024'; **S**; am, af, bw, mc, mm, mr, pp, ra, sf.
- Solidago speciosa* Nutt. var. *pallida* Porter [1,-] A; 7750'; **S**; mm.
- Solidago velutina* DC. ssp. *sparsiflora* (A. Gray) Semple [4,1] A, C, M, S; 7440–9760'; **S**; mc, ra.
- Solidago wrightii* A. Gray var. *adenophora* S.F. Blake [9,-] A, M, S; 7840–9760'; **S**; mc, mm, mr, pp, ra.
- **Sonchus asper* (L.) Hill [2,1] A, R, T; 5800–7660'; **G, L, S**; ds, fr, ml.

- Stephanomeria pauciflora* (Torr.) A. Nelson [3,-] A; 5700–5840'; **L**; pg, pj.
- Symphytotrichum ascendens* (Lindl.) G.L. Nesom [2,3] M, T; 8080–9500'; **S**; mc, mr, ra.
- Symphytotrichum eatonii* (A. Gray) G.L. Nesom [UNM-R. Wallace 92RW002-F5] T; **S**.
- Symphytotrichum falcatum* (Lindl.) G.L. Nesom var. *commutatum* (Torr. & A. Gray) G.L. Nesom [-,1] R; 8150'; **S**; br.
- Symphytotrichum foliaceum* (Lindl. ex DC.) G.L. Nesom var. *canbyi* (A. Gray) G.L. Nesom [-,3] M, T; 7400–10700'; **S**; mm, mr.
- Symphytotrichum foliaceum* (Lindl. ex DC.) G.L. Nesom var. *parryi* (D.C. Eaton) G.L. Nesom [-,2] T; 7850–10500'; **S**; mr.
- Symphytotrichum laeve* (L.) Å. Löve & D. Löve var. *geyeri* (A. Gray) G.L. Nesom [12,2] A, M, R, S; 7700–9320'; **S**; af, mc, mm, mr, ms, pp, ra.
- Symphytotrichum lanceolatum* (Willd.) Nesom var. *hesperium* (A. Gray) G.L. Nesom [3,-] A, S; 7400–8260'; **S**; mm, ra.
- Symphytotrichum porteri* (A. Gray) G.L. Nesom [2,-] A; 7000'; **S**; mm, pp.
- Taraxacum ceratophorum* (Ledeb.) DC. [-,1] T; 10500–11000'; **S**; mm.
- * *Taraxacum erythrospermum* Andrz. ex Besser [1,9] C, R, S, T; 7700–10100'; **S**; br, mm, ms, mr, pj, pp.
- * *Taraxacum officinale* Weber ex F. H. Wigg. [15,50] A, C, M, R, S, T; 7050–12000'; **G, S**; br, fr, mc, ml, mm, ms, mr, pj, pp, ra, sf.
- Tetradymia canescens* DC. [-,3] C, T; 7200–8500'; **S**; br, pj.
- Tetranneuris acaulis* (Pursh) Greene var. *acaulis* [1,2] S, T; 7250–7950'; **S**; pj, pp.
- Tetranneuris acaulis* (Pursh) Greene var. *arizonica* (Greene) Parker [4,-] A; 5700–6200'; **L, S**; pg, pj.
- Tetranneuris acaulis* (Pursh) Greene var. *caespitosa* A. Nelson [1,4] A, T; 7380–12600'; **S**; am, mm, pj.
- Tetranneuris argentea* (A. Gray) Greene [11,26] A, R, S, T; 6050–8700'; **G, P, S**; br, fr, pj, pp.
- Tetranneuris scaposa* (DC.) Greene var. *scaposa* [UNM-F. Broeke Co-75] A; **L**.
- Thelesperma filifolium* (Hook.) A. Gray var. *intermedium* (Rydb.) Shinnars [3,-] S; 7000–7350'; **S**; mm, pj, ra.
- Thelesperma megapotamicum* (Spreng.) Kuntze [16,2] A, R, S, T; 5570–7950'; **G, L, S**; ds, fr, ml, mm, pg, pj, pp.
- Tonestus pygmaeus* (Torr. & A. Gray) A. Nelson [2,9] R, S, T; 11990–13024'; **S**; am, mm.
- Townsendia eximia* A. Gray [21,18] A, M, R, S, T; 7000–10800'; **S**; br, mc, mm, ms, pj, pp, ra.
- Townsendia exscapa* (Richardson) Porter [2,8] A, C, S, T; 5625–8555'; **L, P, S**; ds, fr, pg, pj, pp.
- Townsendia fendleri* A. Gray [1,-] S; 6540'; **G**; pj.
- Townsendia leptotes* (A. Gray) Osterh. [-,3] T; 7250–8763'; **P, S**; pj, pp.
- * *Tragopogon dubius* Scop. [27,37] A, C, M, R, S, T; 5750–10500'; **G, L, P, S**; af, br, ds, mc, ml, mm, mr, pj, pp, ra, sf.
- * *Tragopogon porrifolius* L. [2,-] A; 7840–8325'; **S**; mm, ra.
- * *Tragopogon pratensis* L. [11,4] A, M, R, S, T; 7000–10660'; **S**; mc, mm, mr, ra.
- !† *Tripleurospermum inodorum* (L.) Schultz-Bip. [-,1] T; 8175'; **S**; ml.
- Verbesina encelioides* (Cav.) Benth. & Hook. f. ex A. Gray [3,1] A, S, T; 5500–7450'; **L, S**; fr, mm, ra.
[*Verbesina encelioides* var. *exauriculata* B.L. Rob. & Greenm.]
- Xanthisma gracile* (Nutt.) Morgan & R.L. Hartm. [1, -] S; 7000'; **S**; mm, mr.
- Xanthisma grindelioides* (Nutt.) Morgan & R.L. Hartm. [1,-] S; 6540'; **S**; pj.
- Xanthisma spinulosum* (Pursh) Morgan & R.L. Hartm. var. *glaberrimum* (Rydb.) Morgan & R.L. Hartm. [-,1] **G**; 6540'; R; fr.
- Xanthisma spinulosum* (Pursh) Morgan & R.L. Hartm. var. *spinulosum* [16,11] A, R, S, T; 5610–7600'; **G, L, P, S**; ds, fr, pg, pj, ra.
- * *Xanthium spinosum* L. [1,-] **A**; 5610'; **L**; fr.
- Xanthium strumarium* L. var. *canadense* (Mill.) Torr. & A. Gray [1,-] A; 5500'; **L**; fr.
- Zinnia grandiflora* Nutt. [7,-] A; 5610–6200'; **L, S**; pg, pj.
- Berberidaceae**
- Berberis fendleri* A. Gray [14,7] A, M, S, T; 7000–9400'; **P, S**; mc, mm, mr, pj, pp.
- Berberis fremontii* Torr. [3,-] A; 5500–6150'; **L, S**; fr, pj.
- Berberis repens* Lindl. [7,27] C, R, S, T; 7350–10100'; **S**; af, br, mc, mm, mr, pj, pp.
- * *Berberis vulgaris* L. [UNM-J. Carter 935] T; **G**.
- Betulaceae**
- Alnus incana* (L.) Moench var. *occidentalis* (Dippel) C.L. Hitchc. [34,32] A, C, M, R, S, T; 6040–10500'; **S**; mr, ra.
[*Alnus incana* ssp. *tenuifolia* (Nutt.) Breitung]
- Alnus oblongifolia* Torr. [1,-] S; 7000'; **S**; mr.
- Betula occidentalis* Hook. [-,6] R, T; 6500–9400'; **P, S**; mc, mr.
- Boraginaceae**
- Cryptantha cinerea* (Greene) Cronquist var. *cinerea* [9,3] A, S, T; 5700–7976'; **L, S**; fr, mm, mr, pg, pj, ra.
- Cryptantha crassisepala* (Torr. & A. Gray) Greene var. *elachantha* I.M. Johnst. [-,2] R, T; 5781–6380'; **G**; fr, ra.
- Cryptantha fulvocanescens* (S. Watson) Payson var. *fulvocanescens* [-,4] R; 6036–6540'; **G, P**; ds, fr, pj.
- Cryptantha minima* Rydb. [5,-] A; 5700–7500'; **L, S**; ds, pg, pj.
- * *Cynoglossum officinale* L. [1,19] C, M, T; 6055–10500'; **S**; fr, mc, ml, mm, mr, ra.
- Eritrichum nanum* (Vill.) Schrad. ex Gaudin var. *elongatum* (Rydb.) Cronquist [-,4] T; 11500–13009'; **S**; am.
- Hackelia besseyi* (Rydb.) J.L. Gentry [2,-] A, S; 7800–9200'; **S**; pp, mc.
- Hackelia floribunda* (Lehm.) I.M. Johnst. [3,9] A, C, M, T; 7650–10500'; **S**; mc, ml, mm, mr, ra.
- +† *Hackelia hirsuta* (Wootton & Standl.) I.M. Johnst. [1,6] A, C, M, T; 7650–11000'; **S**; mc, mm, ra.
- Lappula occidentalis* (S. Watson) Greene var. *cupulata* (A. Gray) L.C. Higgins [3,1] A, S, T; 6380–7420'; **S**; mm, pj.
- Lappula occidentalis* (S. Watson) Greene var. *occidentalis* [10,40] A, C, R, S, T; 5781–9750'; **G, P, S**; br, ds, fr, mc, ml, mm, mr, pj, pp, ra.
- * *Lappula squarrosa* (Retz.) Dumort. [-,1] T; 8175'; **S**; ml.
- Lithospermum incisum* Lehm. [7,12] A, C, R, S, T; 5750–8830'; **G, L, P, S**; ds, fr, mc, pg, pj, pp, ra.
- Lithospermum macromeria* J. Cohen [3,-] A; 7720–8600'; **S**; mm, pp, ra.
- Lithospermum multiflorum* Torr. ex A. Gray [13,14] A, C, S, T; 7000–11500'; **S**; br, mc, mm, mr, pj, pp, ra.
- Mertensia alpina* (Torr.) G. Don [UNM-H. Mackay 5T-318] T; **S**.
- Mertensia ciliata* (E. James ex Torr.) G. Don [-,7] T; 9300–13161'; **S**; am, bw, mr, sf.
- Mertensia franciscana* A. Heller [31,40] A, M, R, S, T; 7350–12850'; **S**; bw, mc, mm, mr, pj, sf.
- Mertensia lanceolata* (Pursh) DC. [2,18] A, C, R, S, T; 7350–12850'; **S**; am, br, mc, mm, mr, ra.
[*Mertensia lanceolata* varieties]
- * *Symphytum officinale* L. [UNM-R. Sivinski 3125] S; **S**.
- Brassicaceae**
- * *Alyssum alyssoides* (L.) L. [-,1] R; 8900–9100'; **S**; ra.
- * *Alyssum desertorum* Stapf [-,1] T; 7200'; **S**; ra.
- * *Alyssum simplex* Rudolphi [-,15] C, R, T; 5800–10000'; **G, P, S**; br, ds, fr, ml, mm, mr, pj, pp, ra.
- Arabis pycnocarpa* M. Hopkins var. *pycnocarpa* [-,1] T; 7840–8500'; **S**; mm.
[*Arabis hirsuta* (L.) Scop. var. *pycnocarpa* (M. Hopkins) Rollins]
- Barbarea orthoceras* Ledeb. [1,1] A, T; 6053–7800'; **P, S**; mr, ra.

- * *Barbarea vulgaris* R. Br. [2,3] A, C, R, S, T; 5800–8000'; **L, S**; fr, mr.
- × *Boechera ×divaricarpa* (A. Nelson) Å. Löve & D. Löve [-,1] **C, R**, T; 7150–10500'; **G, S**; br, mc, mm, mr, pj, pp, ra
[A hybrid between *Boechera stricta* and another taxon]
- Boechera fendleri* (S. Watson) W.A. Weber [-,19] **C, R, T**; 6600–10500'; **G, P, S**; br, mc, mm, mr, pj, pp.
- Boechera lignifera* (A. Nelson) W.A. Weber [-,2] **T**; 7380–8350'; **S**; pj.
[error: *B. gracilentia* (Greene) Windham & Al-Shehbaz]
- Boechera pallidifolia* (Rollins) W.A. Weber [-,6] **T**; 7100–8350'; **S**; pj, pp.
- Boechera spatifolia* (Rydb.) Windham & Al-Shehbaz [2,-] **A, S**; 7150–8410'; **S**; mm, mc.
- Boechera stricta* (Graham) Al-Shehbaz [4,22] **A, C, M, S, T**; 8400–12850'; **S**; am, mc, ml, mm, ms, mr, ra, sf.
- * *Camelina microcarpa* Andrz. ex DC. [4,9] **C, R, S, T**; 7100–8550'; **S**; ds, mc, ml, mm, mc, mr, pj, pp, ra.
- * *Capsella bursa-pastoris* (L.) Medik. [9,14] **A, M, R, S, T**; 7550–10600'; **S**; br, mc, mm, mr, pp, ra.
- Cardamine cordifolia* A. Gray var. *cordifolia* [12,21] **A, C, M, R, S, T**; 7900–12000'; **S**; mc, mm, mr, sf.
- * *Chorispora tenella* (Pall.) DC. [-,1] **R**; 6540'; **G**; ra.
- * *Conringia orientalis* (L.) Dumort. [UNM-E. Castetter s.n., 6 Jul 1935] **C, S**.
- Descurainia californica* (A. Gray) O.E. Schulz [-,4] **C, T**; 7800–10500'; **S**; br, mm, mr.
- Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn var. *incisa* (Engelm.) Kartez & Gandhi [4,9] **A, C, M, S, T**; 7215–10500'; **S**; br, mc, mm, mr, pj, pp.
[*Descurainia longepedicellata* (Fourn.) O. E. Schult]
- Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn var. *macrosperma* (O.E. Schulz) Dorn [3,-] **A, M**; 8700–10700'; **S**; mm, mr.
[*Descurainia incana*]
- Descurainia incana* (Bernh. ex Fisch. & C.A. Mey.) Dorn var. *viscosa* (Rydb.) Dorn [13,9] **A, M, R, S, T**; 6200–10700'; **P, S**; ds, fr, mc, mm, pj, ra.
[Not included in taxon count; *Descurainia longepedicellata* (Fourn.) O. E. Schult]
- Descurainia obtusa* (Greene) O.E. Schult ssp. *obtusata* [1,-] **S**; 6540'; **G**; mr.
- Descurainia pinnata* (Walter) Britton var. *filipes* (A. Gray) M. Peck [-,1] **R**; 8100'; **S**; pj.
[Not included in taxon count; *Descurainia longepedicellata* (Fourn.) O. E. Schult]
- Descurainia pinnata* (Walter) Britton var. *osmiarum* (Cockerell) Shinnars [2,1] **A**; **T**; 6200–7500'; **L, S**; ds, pg, pj.
[Not included in taxon count; *Descurainia longepedicellata* (Fourn.) O. E. Schult]
- * *Descurainia sophia* (L.) Webb ex Prantl [5,16] **A, C, R, S, T**; 5781–9100'; **G, L, P, S**; br, ds, fr, mc, ml, mm, mr, pj, pp, ra.
- Draba aurea* Vahl ex Hornem. [-,14] **R, T**; 8350–13024'; **S**; am, mc, mr, sf.
- Draba cana* Rydb. [-,1] **T**; 11500–12700'; **S**; am.
- Draba cuneifolia* Nutt. ex Torr. & A. Gray var. *cuneifolia* [-,1] **R**; 7650'; **S**; pj.
- Draba helleriana* Greene var. *blumeri* C.L. Hitchc. [-,1] **T**; 8500–10500'; **S**; mc.
- Draba helleriana* Greene var. *helleriana* [26,34] **A, M, R, S, T**; 7750–13009'; **S**; am, bw, mc, mm, mr, pj, sf.
- Draba helleriana* Greene var. *patens* (Heller) O. E. Schulz [6,-] **A, M**; 9000–10660'; **S**; mc, mm, ms.
- ! *Draba nemorosa* L. var. *nemorosa* [-,1] **T**; 7350–7450'; **P**; ds.
- Draba reptans* (Lam.) Fernald [-,2] **R, T**; 7050–7740'; **G, S**; fr, pj.
- Draba spectabilis* Greene [1,1] **S, T**; 10150–11900'; **S**; mr.
- Draba streptocarpa* A. Gray [2,16] **A, C, T**; 8300–13009'; **S**; am mc, mm, mr, sf.
- Erysimum capitatum* (Douglas ex Hook.) Greene var. *capitatum* [2,5] **A, M, S, T**; 6400–12584'; **S**; am, bw, mc, mm, pj, sf.
- Erysimum capitatum* (Douglas ex Hook.) Greene var. *elatum* (Nutt.) Torr. [31,35] **A, M, R, S, T**; 6100–13000'; **G, P, S**; am, br, ds, fr, mc, ml, mm, mr, ms, pj, pp, ra.
[*Erysimum capitatum* (Douglas ex Hook.) Greene var. *purshii* (Durand) Rollins]
- Erysimum inconspicuum* (S. Watson) MacMill. [2,1] **A, M, T**; 8680–12183'; **S**; am, mc, mr.
- Hesperidanthus linearifolius* (A. Gray) Rydb. [6,9] **A, R, S, T**; 5500–8540'; **L, P, S**; br, ds, fr, pg, pj, pp, ra.
- Lepidium alyssoides* A. Gray var. *alyssoides* [-,2] **T**; 7100–8175'; **S**; ml, ra.
- * *Lepidium campestre* (L.) R. Br. [-,1] **T**; 7100–7800'; **S**; ra.
- Lepidium densiflorum* Schrad. var. *densiflorum* [4,3] **A, C, S, T**; 5750–8000'; **L, P, S**; ds, ml, pj, ra.
- ! *Lepidium densiflorum* Schrad. var. *macrocarpum* G.A. Mulligan [-,2] **T**; 6100–6500'; **P**; pj.
- Lepidium densiflorum* Schrad. var. *ramosum* (A. Nelson) Thell. [1,-] **S**; 6540'; **G**; fr.
- Lepidium lasiocarpum* Nutt. var. *wrightii* (A. Gray) C.L. Hitchc. [-,1] **T**; 5781'; **G**; fr, ra.
- * *Lepidium latifolium* L. [-,3] **T**; 5781–8550'; **G, P, S**; fr, ra.
- * *Lepidium perfoliatum* L. [-,1] **T**; 6053'; **P**; ra.
- Lepidium ramosissimum* A. Nelson var. *bourgeauanum* (Thell.) Rollins [1,1] **S, T**; 7000–9750'; **S**; mm, mr, ra, sf.
- Lepidium virginicum* L. var. *medium* (Greene) C.L. Hitchc. [-,3] **R, T**; 6053–9400'; **P, S**; fr, pp, ra.
[*Lepidium virginicum* var. *menziesii* (DC.) Thell.]
- Lepidium virginicum* var. *pubescens* (Greene) Thell. [3,4] **A, S, T**; 6500–9400'; **P, S**; mc, mr, pp, sf.
[*Lepidium virginicum* L. var. *menziesii* (DC.) Thell.]
- * *Nasturtium officinale* R. Br. [-,1] **T**; 6600–6800'; **P**; fr.
- Noccaea fendleri* (A. Gray) Holub ssp. *glauca* (A. Nelson) Al-Shehbaz & M. Koch [8,27] **A, M, R, S, T**; 7250–11950'; **S**; bw, br, mc, mm, mr, pj, pp, sf.
- Pennellia longifolia* (Benth.) Rollins [3,-] **A**; 8000–8575'; **S**; mc, ms.
- Pennellia micranthra* (A. Gray) Nieuwl. [1,4] **A, C, R, T**; 5840–10500'; **L, S**; mc, pg, pj, pp.
- Physaria calcicola* (Rollins) O'Kane & Al-Shehbaz [2,-] **S**; 7100–7350'; **S**; pj.
- Physaria fendleri* (A. Gray) O'Kane & Al-Shehbaz [1,-] **A**; 5700–5800'; **L**; pg, pj.
- Physaria floribunda* Rydb. var. *floribunda* [-,6] **T**; 7250–8550'; **S**; br, pj.
- Physaria montana* (A. Gray) Greene [2,9] **R, S, T**; 7050–8000'; **G, P, S**; ds, fr, pj.
- Physaria rectipes* (Wootton & Standl.) O'Kane & Al-Shehbaz [1,10] **R, S, T**; 6050–8500'; **G, P, S**; ds, pj.
- Physaria valida* (Greene) O'Kane & Al-Shehbaz [1,-] **S**; 7000–7200'; **S**;
- Rorippa palustris* (L.) Besser var. *fernaldiana* (Butters & Abbe) Stuckey [-,1] **T**; 7240'; **S**; ra.
[*Rorippa palustris* var. *palustris*]
- Rorippa sinuata* (Nutt.) Hitchc. [UNM-R. Ivey s.n., 1 Sept 1992] **T**; **S**;
- Rorippa sphaerocarpa* (A. Gray) Britton [3,-] **A, M**; 8375–9600'; **S**; mc, mm.
- * *Rorippa sylvestris* (L.) Besser [1,-] **A**; 5500'; **L**; fr.
- * *Sisymbrium altissimum* L. [8,17] **A, C, R, S, T**; 5781–9600'; **G, P, S**; br, ds, fr, ml, mm, mr, pj, pp, ra.
- * *Sisymbrium loeselii* L. [-,2] **T**; 7100–7240'; **S**; ra.
- Streptanthella longirostris* (S. Watson) Rydb. [-,1] **T**; 5781'; **G**; ds, fr.
- Streptanthus cordatus* Nutt. var. *cordatus* [-,2] **T**; 7600–8900'; **S**; pj, pp.
- + *Thelypodopsis vaseyi* (S. Watson ex B.L. Rob.) Rollins [7,3] **A, M, T**; 7900–10660'; **S**; af, mc, mm, ra.
- Thelypodium wrightii* A. Gray ssp. *wrightii* [-,1] **T**; 7600–8300'; **S**; pj.

- * *Thlaspi arvense* L. [-,4] R, T; 5781–9500'; **G, P, S**; fr, mc, mr, ra.
Turritis glabra L. [9,2] A, C, S; 8230–9320'; **S**; mm, mr, ra.
- Cactaceae**
Coryphantha vivipara (Nutt.) Britton & Rose [-,3] T; 7600–8450'; **S**; pj, pp.
Cylindropuntia imbricata (Haw.) Knuth var. *imbricata* [9,9] A, R, S, T; 5585–8300'; **G, L, P, S**; ds, fr, pg, pj.
Echinocereus coccineus Engelm. [5,9] A, C, R, S, T; 5625–8900'; **G, L, P, S**; ds, mm, mc, pg, pj, pp.
Echinocereus triglochidiatus Engelm. [2,10] A, R, T; 5781–8450'; **G, L, P, S**; ds, fr, pj, pp, ra.
Echinocereus viridiflorus Engelm. [-,15] C, R, T; 6200–8277'; **G, P, S**; ds, fr, pj, pp.
Opuntia engelmannii Salm-Dyck ex Engelm. var. *engelmannii* [1,-] A; 5700–5800'; **L**; pj.
Opuntia macrorhiza Engelm. [UNM-E. Castetter 1250] T; **S**.
Opuntia phaeacantha Engelm. [9,9] A, C, R, S, T; 5730–8300'; **G, L, P, S**; ds, mm, pg, pj, pp.
Opuntia polyacantha Haw. var. *polyacantha* [5,28] A, C, R, S, T; 5730–8900'; **G, L, P, S**; ds, fr, mc, mm, pg, pj, pp, ra.
Pediocactus simpsonii (Engelm.) Britton & Rose [UNM-W. Sedlacek 3769] T; **S**.
- Campanulaceae**
Campanula parryi A. Gray var. *parryi* [2,11] A, C, R, T; 7400–10400'; **S**; mc, mm, mr, ra.
Campanula rotundifolia L. [49,51] A, C, M, R, S, T; 7000–13024'; **S**; am, bw, br, mc, mm, ms, mr, pj, pp, ra, sf.
Campanula uniflora L. [UNM-H. Mackay 9T-1] T; **S**.
Lobelia cardinalis L. [UNM-F. Bartlette s.n., Aug 1905] A; **S**.
- Cannabaceae**
Cannabis sativa L. var. *sativa* [1,-] M; 7700'; **S**; mr.
Celtis occidentalis L. [1,-] A; 5500'; **L**; fr, pj.
Celtis reticulata Torr. [1,-] A; 5700–5800'; **L**; fr, pj.
Humulus lupulus L. var. *neomexicanus* A. Nelson & Cockerell [4,1] A, S, T; 7580–8400'; **S**; mm, mr.
- Caprifoliaceae** (includes Valerianaceae)
Linnaea borealis L. var. *longiflora* Torr. [2,4] M, S, T; 8410–10800'; **S**; mc, mr, sf.
Lonicera involucrata (Richardson) Banks ex Spreng. [18,20] A, M, R, S, T; 7840–11950'; **S**; mc, mm, mr, sf.
Symphoricarpos rotundifolius A. Gray [33,24] A, M, R, S, T; 7250–10500'; **S**; br, mc, mm, mr, pj, pp.
Valeriana acutiloba Rydb. var. *acutiloba* [2,9] M, R, T; 7550–11850'; **S**; br, mc, mm, pp, sf.
Valeriana arizonica A. Gray [2,-] A, S; 7740–8180'; **S**; mr.
Valeriana edulis Nutt. ex Torr. & A. Gray [17,16] A, C, M, S, T; 7050–12850'; **S**; bw, br, mc, mm, mr, ra, sf.
- Caryophyllaceae**
Arenaria lanuginosa (Michx.) Rohrb. var. *saxosa* (A. Gray) Zarucchi, R.L. Hartm., & Rabeler [15,23] A, C, M, S, T; 7840–12000'; **S**; af, bw, mc, mm, mr, ms, ra, sf.
[*Spergularastrum lanuginosum* Michx. ssp. *saxosum* (A. Gray) W.A. Weber]
- Cerastium arvense* L. var. *strictum* (Gaudin) Koch [-, 20] C, T; 7620–13009'; **S**; am, mm, mr, sf.
Cerastium brachypodium (Engelm. ex A. Gray) B.L. Rob. [3,-] A, M; 8600–9340'; **S**; mc, mm, mr.
* *Cerastium fontanum* Baumg. ssp. *vulgare* (Hartm.) Greuter & Burdet [17,2] A, M, S, T; 7000–10880'; **S**; af, mc, mm, mr, ra.
* *Dianthus armeria* L. [-,1] R; 7600–7750'; **S**; pj.
Eremogone eastwoodiae (Rydb.) Ikonn. var. *adenophora* (Kearney & Peebles) R.L. Hartm. & Rabeler [-,3] R; 6050–6500'; **G, P**; fr, pj.
Eremogone eastwoodiae (Rydb.) Ikonn. var. *eastwoodiae* [2,1] R, S; 6540–7050'; **G**; ds, fr, pj.
Eremogone fendleri (A. Gray) Ikonn. [22,27] A, C, M, R, S, T; 7000–13024'; **P, S**; am, bw, fr, mc, mm, mr, pp, sf.
Minuartia obtusiloba (Rydb.) House [7,20] A, M, R, S, T; 9800–13024'; **S**; am, mm.
Minuartia rubella (Wahlenb.) Hiern [-,4] T; 10500–12700'; **S**; am, mm.
Moehringia lateriflora (L.) Fenzl [-,1] T; 9475'; **S**; mr.
Moehringia macrophylla (Hook.) Fenzl [1,7] S, T; 7620–10500'; **S**; br, mc, mr.
Paronychia jamesii Torr. & A. Gray [2,-] A; 5730–7500'; **L, S**; pg, pj.
Paronychia pulvinata A. Gray [-,3] T; 10200–12500'; **S**; am.
Pseudostellaria jamesiana (Torr.) W.A. Weber & R.L. Hartm. [-,14] R, T; 7550–11800'; **S**; br, mc, mm, mr, pp, sf.
Sagina saginoides (L.) H. Karst. [-,1] T; 10700'; **S**; mr.
* *Saponaria officinalis* L. [2,-] A, S; 7400–8000'; **S**; mm, mr.
Silene acaulis (L.) Jacq. var. *subcaulescens* (F.N. Wms.) Fern. & St John [1,7] S, T; 9800–12850'; **S**; am.
Silene antirrhina L. [-,1] T; 7600–8450'; **S**; pp.
Silene drummondii Hook. var. *drummondii* [8,16] A, M, R, S, T; 7840–12000'; **S**; mc, mm, mr, pp, sf.
! *Silene drummondii* Hook. var. *striata* (Rydb.) Bocq. [-,4] C, M, T; 8300–10986'; **S**; mc, mm, mr, sf.
! *Silene hitchguirei* Bocq. [-,1] T; 11500–12850'; **S**; am.
Silene latifolia Poiret ssp. *alba* (Miller) Greuter & Burdet [6,-] A; 7800–9750'; **S**; mc, mm, mr, ra.
* *Silene noctiflora* L. [1,-] M; 7700'; **S**; mm, ra.
Silene scouleri Hook. var. *pringlei* (S. Watson) C.L. Hitchc. & Maguire ex Kartesz & Gandhi [12,9] A, C, M, S, T; 8160–11500'; **S**; mc, mm, mr, sf.
Stellaria longifolia Muhl. ex Willd. [1,4] M, T; 7050–11333'; **S**; mm, mr.
Stellaria longipes Goldie var. *longipes* [4,16] A, M, S, T; 7850–12700'; **S**; am, mc, mm, mr, pp, sf.
Stellaria umbellata Turcz. ex Karel. & Kir. [1,7] S, T; 9700–12700'; **S**; am, mc, mm, mr, sf.
* *Vaccaria hispanica* (Mill.) Rauschert [UNM-F. Bartlette s.n., Jul 1904] A; **S**.
- Celastraceae**
Paxistima myrsinites (Pursh) Raf. [14,31] A, C, M, R, S, T; 7350–12000'; **P, S**; br, mc, mm, mr, pp, ra, sf.
- Chenopodiaceae**
Atriplex canescens (Pursh) Nutt. var. *canescens* [4,8] A, R, S, T; 5800–7550'; **G, P, S**; ds, fr, pj, ra.
* *Bassia hyssopifolia* (Pall.) Kuntze [-,2] T; 8550–9675'; **G, P, S**; br, mc, mr.
Chenopodium atrovirens Rydb. [4,8] A, M, T; 7750–11500'; **S**; mm, mr, ra, sf.
Chenopodium berlandieri Moq. var. *zschackei* (Murr) Murr ex Asch. [8,2] A, C, M, S; 7400–9200'; **S**; mc, ml, mm, ra.
Chenopodium fremontii S. Watson [5,6] A, M, T; 7350–10500'; **S**; br, fr, mc, mm, pj, ra.
* *Chenopodium glaucum* L. var. *glaucum* [-,1] C; 8194'; **S**; ml.
Chenopodium glaucum L. var. *salinum* (Standl.) B. Boivin [UNM-E. Castetter 3951] C; **S**.
Chenopodium incanum (S. Watson) A. Heller var. *incanum* [5,1] A, T; 5610–7240'; **L, S**; fr, ds, mm, pg, pj, ra.
Chenopodium leptophyllum (Moq.) Nutt. ex S. Watson [UNM-K. Goodrow 558] A; **S**.
* *Chenopodium overi* Aellen [7,4] A, M, S, T; 8160–9800'; **S**; mc, mm, ra.
[*Chenopodium capitatum* (L.) Ambrosi var. *parvicapitatum* S.L. Welsh]

- Chenopodium pallescens* Standl. [1,-] A; 7000'; S; pp.
Chenopodium pratericola Rydb. [-,2] C, T; 7650–9700'; S; pj, mm.
 [*Chenopodium desiccatum* A. Nelson var. *leptophylloides* (Murr) Wahl]
Chenopodium watsonii A. Nelson [1,-] A; 5600–5650'; L; pg.
 * *Dysphania botrys* (L.) Mosyakin & Clemants [UNM-E. Kelley 247] S; S.
Dysphania graveolens (Willd.) Mosyakin & Clemants [4,6] A, C, R, S, T; 7400–9400'; S; br, mm, mr, pp, ra.
 * *Kochia scoparia* (L.) Schrad. [3,2] A, C, S, T; 5730–8750'; R, S, T; mr, pg, pj, ra.
Krascheninnikovia lanata (Pursh) Meeuse & Smit [3,3] A, T; 5730–8555'; L, P, S; ds, fr, pg, pj.
Monolepis nuttalliana (Schult.) Greene [-,3] T; 9200–11800'; S; am, mr, sf.
 * *Salsola collina* Pall. [UNM-E. Kelley 304] S; S.
 * *Salsola tragus* L. [-,3] C, T; 7240–9400'; S; ml, pj, ra.

Cleomaceae [Capparaceae]

- Cleome serrulata* Pursh [UNM-H. Dixon V-97] T; S.
 [*Peritoma serrulata* (Pursh) A. DC.]
Polanisia dodecandra (L.) DC. var. *trachysperma* (Torr. & A. Gray) H.H. Iltis [2,-] A; 5500–5610'; L; fr, pj.

Commelinaceae

- Commelina dianthifolia* Delile [5,1] A, C, S; 7000–8260'; S; ms, pp.
Commelina erecta L. var. *angustifolia* (Michx.) Fernald. [2,-] A; 5500–5840'; L; ds, fr, pj.
Tradescantia occidentalis (Britton) Smyth var. *occidentalis* [4,-] A; 5500–6200'; L; fr, pg, pj.

Convallariaceae [traditionally in Liliaceae]

- Maianthemum racemosum* (L.) Link var. *amplexicaule* (Nutt.) Dorn [14,15] A, C, M, S, T; 7840–10850'; S; mc, mm, mr, sf.
Maianthemum stellatum (L.) Link [8,13] A, C, M, S, T; 7620–11650'; S; mc, mm, mr, sf.
Polygonatum biflorum (Walter) Elliott [1,-] M; 9760–10600'; S; mr.

Convolvulaceae

- * *Convolvulus arvensis* L. [10,5] A, M, R, S, T; 5800–9320'; G, L, S; fr, ml, mm, pg, pj, ra.
Convolvulus equitans Benth. [1,-] A; 5650–5740'; L; pg, pj.
Evolvulus nuttallianus Roemer & Schult. [2,-] A; 5700–5840'; L; pg, pj, ra.
Evolvulus sericeus Swartz var. *sericeus* [2,-] A; 5700–5840'; L; pg, pj, ra.
Ipomoea cristulata H. Hall [1,-] S; 6840–6880'; S; pj.
Ipomoea leptophylla Torr. [1,-] A; 5570–5600'; L; fr.

Cornaceae

- ♦ *Cornus canadensis* L. [-,2] T; 9700–11500'; S; mc, mm, mr, sf.
Cornus sericea L. var. *sericea* [11,12] A, C, S, T; 7400–9400'; S; mc, mr.

Crassulaceae

- Sedum cockerellii* Britton [14,3] A, C, M, S, T; 7750–9400'; S; mc, mr, ms.
Sedum integrifolium (Raf.) A. Nelson ssp. *integrifolium* [10,19] A, C, M, R, S, T; 7840–13009'; S; am, mc, mm, mr, sf.
Sedum lanceolatum Torr. ssp. *lanceolatum* [-,18] R, T; 7600–12400'; S; am, bw, mc, mm, mr, ra, sf.
Sedum rhodanthum A. Gray [3,4] M, R, T; 9900–12050'; S; am, mm, mr, sf.
Sedum wrightii A. Gray [UNM-N.D. Atwood 21328] S; S.

Cucurbitaceae

- Cucurbita foetidissima* Kunth [4,-] A; 5570–7240'; L, S; fr, pj, ra.
Echinocystis lobata (Michx.) Torr. & A. Gray [UNM-R. Jackson 2341] T; G.

Cyperaceae

- Carex albonigra* Mack. [1,5] M, T; 10500–12850'; S; am, mm.
Carex aquatilis Wahlenb. var. *aquatilis* [-,10] M, T; 9700–11200'; S; mm, mr, sf.
Carex aurea Nutt. [1,5] A, T; 8300–10500'; S; mm, mr.
Carex bella L.H. Bailey [5,19] A, M, R, S, T; 8300–11650'; S; bw, mm, mr, sf.
Carex brevior (Dewey) Mack. ex. Lunell [1,-] A; 7200–7240'; S; ml.
Carex canescens L. var. *canescens* [2,3] M, S, T; 8410–12000'; S; mm, mr, sf.
Carex capillaris L. [-,1] T; 9700–11500'; S; mr.
Carex chalciolepis T. Holm [-,8] T; 10990–13009'; S; am, mm.
 ! *Carex deweyana* Schwein. var. *deweyana* [1,3] S, T; 7620–9300'; S; mr, pp.
Carex disperma Dewey [1,3] M, R, T; 8400–10180'; S; mr.
Carex douglasii Boott [-,5] R, T; 7050–8500'; G, P, S; ds, fr, mm, mr, pp.
Carex duriuscula C.A. Mey. [-,4] C, T; 7200–9700'; S; mm, mr, pj, pp.
Carex ebenea Rydb. [6,12] A, M, R, S, T; 9375–13024'; S; am, bw, mm, mr, sf.
Carex elynoides Holm [-,8] T; 11500–13161'; S; am.
Carex emoryi Dewey [-,3] R, T; 5781–10000'; G, S; fr, ra.
Carex geophila Mack. [-,30] C, R, T; 6100–11200'; G, P, S; bw, ds, fr, mc, ms, mr, pj, pp.
 ! *Carex gynocrates* Wormsk. ex Drejer [-,1] T; 9700–11500'; S; mr.
Carex illota L.H. Bailey [-,2] R, T; 11750–12960'; S; mr, sf.
Carex inops L.H. Bailey ssp. *heliophila* (Mack.) Crins. [2,17] A, C, R, S, T; 7050–9600'; G, S; af, br, mc, mm, ms, mr, pj, pp, ra.
Carex interior L.H. Bailey [1,1] M, T; 9900–12050'; S; mm, mr.
 ! *Carex lenticularis* Michx. var. *lipocarpa* (Holm) L.A. Standl. [2,-] S; 7580–8410'; S; mr.
Carex micropoda C.A. Meyer [UNM-C. Keller 2218] T; S.
 [*Carex pyrenaica* Wahlenb.]
Carex microptera Mack. [19,31] A, C, M, R, S, T; 7580–12960'; S; am, bw, mc, mm, mr, ms, sf.
Carex nebrascensis Dewey [2,15] C, M, S, T; 6500–11200'; G, P, S; ml, mm, mr.
Carex nova L.H. Bailey var. *nova* [-,16] M, T; 9200–12960'; S; am, mc, mm, mr, sf.
Carex occidentalis L.H. Bailey [14,28] A, C, M, R, S, T; 5750–10000'; G, L, P, S; bw, br, ds, fr, mc, mm, mr, ms, pp, ra, sf.
Carex oreocharis Holm [-,1] C; 10000–10600'; S; mm, sf.
Carex pellita Muhl. ex Willd. [2,3] A, C, T; 6600–8400'; P, S; fr, mr.
Carex petasata Dewey [-,2] T; 9375–12000'; S; bw, mr.
Carex phaeocephala Piper [-,1] T; 12000–12625'; S; am.
Carex pityophila Mack. [-,9] C, T; 7775–12000'; S; am, mc, pp, sf.
 [*Carex geophila* Mack.]
Carex praegracilis Boott [-,4] R, T; 6500–10700'; P, S; fr, ml, mr.
 ! *Carex rosea* Schkuhr ex Willd. [2,-] A; 7800–8325'; S; mc, mr.
Carex rossii Boott [-,17] R, T; 6036–11000'; P, S; br, mc, mr, pp, sf.
Carex rupestris Bellardi ex All. var. *drummondiana* (Dewey) L.H. Bailey [-,4] T; 10500–13000'; S; am.
Carex siccata Dewey [2,16] A, C, M, R, T; 8300–12960'; S; am, mc, mm, mr, sf.
 [*Carex foenea* Willd. var. *foenea*]
Carex stevenii (T. Holm) Kalela [3,8] M, S, T; 7620–11500'; S; mm, mr.
Carex stipata Muhl. ex Willd. var. *stipata* [6,2] A, T; 7850–10500'; S; mm, mr.
Carex subfusca Boott [2,-] S; 8260–8940'; S; mr.
Carex tahoensis Smiley [UNM-R. Gierisch 3146] R; S.
Carex utriculata Boott [2,12] A, C, T; 7050–11209'; S; ml, mm, mr, sf.
Carex vallicola Dewey [-,1] T; 7550'; S; br.
Carex vulpinoidea Michx. [1,-] A; 7740–7880'; S; mr.
Carex wootonii Mack. [2,-] A; 8900–9500'; S; mc, mr.
Cyperus esculentus L. var. *leptostachyus* Boeck. [1,-] A; 5500'; L; fr.

- Cyperus fendlerianus* Boeck. [17,2] A, C, M, S; 5800–9080'; **L, S**; mc, mm, mr, pj, pp, ra.
- Cyperus retroflexus* Buckley var. *pumilus* (Britton) R. Carter & S.D. Jones [1,-] A; 5500'; **L**; fr.
- Cyperus schweinitzii* Torr. [1,-] A; 5630'; **L**; fr.
- Eleocharis bella* (Piper) Svenson [1,-] A; 7200–7240'; **S**; ml.
- Eleocharis engelmannii* Steud. [1,-] A; 7200–7240'; **S**; ml.
- Eleocharis erythropoda* Steud. [UNM- E. Castetter 3390] C; **S**.
- Eleocharis palustris* (L.) Roem. & Schult. [1,12] C, M, R, T; 5781–10000'; **G, P, S**; fr, ml, mm, mr, ra.
- Eleocharis quinqueflora* (F.X. Hartm.) O. Schwarz [-,5] C, T; 8500–10500'; **S**; mm, mr.
- Eleocharis rostellata* (Torr.) Torr. [-,1] R; 6450'; **G**; fr.
- Eriophorum angustifolium* Honck. ssp. *angustifolium* [-,3] T; 10700–12050'; **S**; mr.
- Kobresia myosuroides* (Villars) Fiori & Paoli [-,2] T; 11990–12050'; **S**; am.
- Schoenoplectus acutus* (Muhl. ex Bigelow) Á. Löve & D. Löve var. *occidentalis* (S. Watson) S.G. Sm. [-,2] T; 7550–9300'; **S**; ml, mr.
- Schoenoplectus americanus* (Pers.) Volkart ex Schinz & R. Keller [-,2] T; 6500–7660'; **P, S**; fr, ml.
- Schoenoplectus pungens* (Vahl) Palla var. *longispicatus* (Britton) S.G. Sm. [2,1] M, R; 6380–7700'; **G, S**; fr, ml, mr.
- Elaeagnaceae**
- * *Elaeagnus angustifolia* L. [5,3] A, R, S, T; 5500–7400'; **G, L, P, S**; fr, ml, ra.
- Shepherdia canadensis* (L.) Nutt. [16,14] A, C, M, R, S, T; 7620–10200'; **S**; mc, mm, mr, pp.
- Ericaceae**
- Arctostaphylos pungens* Kunth [UNM-K. Weissenborn 37] S; **S**.
- Arctostaphylos uva-ursi* (L.) Spreng. [18,13] A, C, M, R, S, T; 7720–11209'; **P, S**; mc, mm, mr, pp, sf.
- Chimaphila umbellata* (L.) W.P.C. Barton var. *occidentalis* (Rydb.) S.F. Blake [5,1] A, S, T; 8385–10440'; **S**; mc, sf.
- [*Chimaphila umbellata* (L.) Nutt. var. *acuta* (Rydb.) S.F. Blake]
- Gaultheria humifusa* (Graham) Rydb. [UNM-H. Mackey 6T-169] T, **S**.
- Moneses uniflora* (L.) A. Gray var. *uniflora* [1,16] M, R, S, T; 7850–11500'; **S**; mm, sf.
- Monotropa hypopithys* L. [2,1] C, M, S; 8880–9040'; **S**; mc.
- Orthilia secunda* (L.) House [11,20] A, M, R, S, T; 7850–12115'; **S**; mc, mm, sf.
- Pterospora andromedea* Nutt. [9,3] A, C, S, T; 7580–10500'; **S**; mc.
- Pyrola asarifolia* Michx. var. *asarifolia* [1,3] C, S, T; 8960–10440'; **S**; mc, sf.
- Pyrola chlorantha* Sw. [1,6] S, T; 8350–11150'; **S**; mc, mr, sf.
- Pyrola elliptica* Nutt. [1,-] S; 8200–8320'; **S**; mr.
- Pyrola minor* L. [4,4] A, M, S, T; 8410–11500'; **S**; mc, mm, mr, sf.
- Pyrola picta* Sm. [1,-] A; 8400–8900'; **S**; mc.
- Vaccinium myrtillus* L. var. *oreophilum* (Rydb.) Dorn [11,5] A, M, R, S, T; 8450–13024'; **S**; mc, sf.
- Vaccinium scoparium* Leiberg ex Coville [-,15] C, T; 9400–12850'; **S**; am, mc, mr, sf.
- Euphorbiaceae**
- Chamaesyce fendleri* (Torr. & A. Gray) Small var. *chaetocalyx* (Boiss.) Shinners [2,-] S; 6540–7100'; **G, S**; pj, ra.
- Chamaesyce fendleri* (Torr. & A. Gray) Small var. *fendleri* [7,17] A, R, S, T; 5700–7950'; **G, L, P, S**; ds, fr, pg, pj, ra.
- Chamaesyce glyptosperma* (Engelm.) Small [2,1] A, S, T; 5760–7100'; **L, S**; pg, pj, ra.
- Chamaesyce serpyllifolia* (Pers.) Small [4,7] A, C, M, R, S, T; 5610–9400'; **L, S**; br, fr, mr, pj, pp, ra.
- Chamaesyce strictospora* (Engelm.) Small [UNM-E. Castetter 7078] T, **G**.
- Croton texensis* (Klotzsch) Müll.Arg. [5,-] A, S; 5500–6880'; **L, S**; fr, pg, pj, ra.
- Euphorbia brachycera* Engelm. [UNM-R. Sivinski 2221] A; **S**.
- Euphorbia davidii* Subils [2,-] S; 6840–7420'; **S**; ra.
- Tragia nepetifolia* Cav. [2,-] A; 5800–6750'; **L, S**; pg, pj.
- Tragia ramosa* Torr. [1,-] A; 5700–5800'; **L**; fr, pj.
- Fabaceae**
- Amorpha canescens* Pursh [3,2] A, C; 7000–8600'; **S**; ms, pp.
- Astragalus agrestis* Douglas ex G. Don [-,1] C; 8400–8500'; **S**; pp.
- Astragalus allochrous* A. Gray var. *playanus* (M.E. Jones) Isley [-,2] T; 6600–8555'; **P**; ds, fr, pj.
- Astragalus alpinus* L. [-,6] T; 8700–11000'; **S**; mr, sf.
- Astragalus crassicaarpus* Nutt. var. *cavus* Barneby [1,-] A; 6120–6180'; **S**; pj.
- + *Astragalus cyaneus* A. Gray [-,1] T; 7215'; **S**; pj.
- Astragalus drummondii* Douglas ex Hook. [-,8] R, T; 6600–9400'; **P, S**; fr, mc, pj, pp, ra.
- Astragalus flexuosus* (Hook.) Douglas ex G. Don var. *flexuosus* [1,2] A, T; 7500–9500'; **S**; mm, mr, sf.
- Astragalus gracilis* Nutt. [1,-] A; 6200'; **L**; pg, pj.
- Astragalus hallii* A. Gray var. *hallii* [-,3] C, M, T; 8175–9320'; **S**; ml, mr, ra.
- Astragalus humistratus* A. Gray var. *humistratus* [-,2] C, T; 7650–9750'; **S**; mm.
- ♦ *Astragalus iodopetalus* (Rydb.) Barneby [-,3] T; 7100–7660'; **S**; pj.
- Astragalus kentrophyta* A. Gray var. *tegetarius* (S. Watson) Dorn [UNM-E. Castetter 10533] T; **S**.
- Astragalus laxmannii* Jacq. var. *robustior* (Hook.) S.L. Welsh & Barneby [-,1] T; 9150'; **S**; mm.
- Astragalus lentiginosus* Douglas ex Hook. var. *albiflorus* (A. Gray) Schoener [-,4] R, T; 6036–6700'; **P**; fr, pj, ra.
- Astragalus lonchocarpus* Torr. [3,10] R, S, T; 5800–7660'; **G, P, S**; ds, fr, ml, pj.
- Astragalus lotiflorus* Hook. [-,1] T; 5781'; **G**; fr, ra.
- Astragalus missouriensis* Nutt. var. *missouriensis* [2,6] A, R, S, T; 5750–8100'; **G, L, P, S**; ds, fr, pg, pj, pp, ra.
- Astragalus multiflorus* (Pursh) A. Gray [-,7] R, T; 6380–7950'; **G, S**; fr, pj, ra.
- [*Astragalus tenellus* Pursh]
- Astragalus praelongus* E. Sheld. var. *praelongus* [1,1] A, R; 6350–6500'; **P, S**; pj.
- + *Astragalus puniceus* Osterh. var. *gertrudis* (Greene) Barneby [-,2] T; 7215–8000'; **S**; pj.
- Astragalus puniceus* Osterh. var. *puniceus* [-,3] R, T; 6976–7215'; **G, P, S**; ds, pj.
- Astragalus racemosus* Pursh var. *racemosus* [UNM-K. Epperson s.n., 16 May 2004] T; **S**.
- Astragalus robbinsii* (Oakes) A. Gray var. *minor* (Hook.) Barneby [-,1] T; 9900–10500'; **S**; sf.
- Astragalus scopulorum* Porter [1,2] A, R, T; 7150–12200'; **S**; bw, mc, mr.
- Calliandra humilis* Benth. var. *humilis* [3,-] A; 5800–8200'; **L, S**; ms, pg, pj, pp.
- Dalea candida* Michx. ex Willd. var. *oligophylla* (Torr.) Shinners [3,-] A; 5570–7000'; **L, S**; pg, pj, pp.
- Dalea formosa* Torr. [2,1] A, R; 5800–6350'; **G, L, S**; ds, pj.
- Dalea jamesii* (Torr.) Torr. & A. Gray [2,1] A, R; 5750–6500'; **L, P**; pg, pj.
- Dalea purpurea* Vent. var. *purpurea* [3,-] A; 7000–7520'; **S**; ms, pp.
- Dalea tenuifolia* (A. Gray) Shinners [2,-] A; 5700–5800'; **L**; pg, pj.
- Desmanthus cooleyi* (Eaton) Trel. [UNM-R. Sivinski 2414] S; **S**
- Desmanthus illinoensis* (Michx.) MacMill. ex B.L. Rob. & Fernald [UNM-C.R. Hutchins 9946] S; **S**.
- Glycyrrhiza lepidota* Nutt. ex Pursh [1,1] S, T; 5781–6540'; **G**; fr, ra.

- Hedysarum boreale* Nutt. var. *boreale* [UNM-C.R. Hutchins 5859] C; G. Hoffmannseggia *drepanocarpa* A. Gray [1,-] A; 5760'; L; pg, pj.
Lathyrus arizonicus Britton [UNM-C.R. Hutchins 6340] S; S.
Lathyrus eucosmus Butters & H. St.John [1,3] S, T; 7200–7500'; S; fr, mr, ra.
Lathyrus graminifolius T.G. White [UNM-D. Atwood 21434] A; S.
 * *Lathyrus latifolius* L. [UNM-C.R. Hutchins 8305] S; S.
Lathyrus leucanthus Rydb. [4,17] A, R, S, T; 7620–11500'; S; bw, mc, mm, mr, pj, pp, ra, sf.
Lupinus argenteus Pursh var. *argenteus* [-,14] R, T; 6850–10500'; G, P, S; br, mc, mr, pj, ra.
Lupinus argenteus Pursh var. *argophyllus* (A. Gray) S. Watson [9,10] A, R, S, T; 6380–8150'; G, S; br, fr, ml, mm, mr, pj, ra.
 [Lupinus *caudatus* Kellogg var. *argophyllus* (A. Gray) S.L. Welsh]
Lupinus argenteus Pursh var. *fulvomaculatus* (Payson) Barneby [1,1] S, T; 8260–10500'; S; mc, mm.
Lupinus argenteus Pursh var. *palmeri* (S. Watson) Barneby [UNM-A. Foster 78] T; S.
Lupinus argenteus Pursh var. *rubricalis* (Greene) S.L. Welsh [-,1] T; 8350–9400'; S; mc.
Lupinus brevicaulis S. Watson [-,1] T; 7598'; S; pj.
Lupinus kingii S. Watson [1,1] A, T; 7200–8763'; P, S; pj, pp.
 * *Medicago lupulina* L. [24,22] A, C, M, R, S, T; 5800–10660'; L, P, S; fr, mc, ml, mm, mr, pj, pp, ra.
 * *Medicago sativa* L. [14,12] A, M, R, S, T; 5781–10500'; G, L, S; ds, fr, ml, mm, mr, pp, ra.
 * *Melilotus albus* Medik. [8,8] A, C, M, R, S, T; 6560–10500'; G, S; ds, fr, mc, mm, mr, pj, ra.
 * *Melilotus officinalis* (L.) Pall. [19,34] A, C, M, R, S, T; 5781–10500'; G, L, P, S; br, ds, fr, mc, ml, mm, ms, mr, pg, pj, pp, ra.
Oxytropis deflexa (Pall.) DC. var. *sericea* Torr. & A. Gray [-,6] C, T; 8175–11000'; S; ml, mm, mr, sf.
Oxytropis lambertii Pursh var. *bigelovii* A. Gray [2,6] A, C, R, T; 6560–11200'; G, S; ds, mc, mm, ms, pj, pp, ra.
Oxytropis sericea Nutt. var. *sericea* [2,7] C, M, S, T; 6600–10093'; P, S; ds, fr, mc, pj, pp.
Oxytropis splendens Douglas ex Hook. [1,2] M, T; 8700–10080'; S; mm.
Pomaria jamesii (Torr. & A. Gray) Walp. [1,-] A; 5500'; L; fr.
Prosopis glandulosa Torr. var. *torreyana* (L. Benson) M.C. Johnston [1,-] A; 5800'; L; fr, pj.
Psoralidium lanceolatum (Pursh) Rydb. [-,1] T; 5781'; G; fr, ra.
Psoralidium tenuiflorum (Pursh) Rydb. [6,-] A; 5570–7240'; L, S; mm, pg, pj, pp.
Robinia neomexicana A. Gray var. *neomexicana* [2,-] A, M; 7700–8000'; S; mm, ms.
Senna baubinioides (A. Gray) Irwin & Barneby [2,-] A; 5760–5840'; L; pg, pj.
Thermopsis rhombifolia (Nutt. ex Pursh) Nutt. ex Richardson var. *divaricarpa* (A. Nelson) Isley [1,-] M; 10600–10800'; S; mm.
Thermopsis rhombifolia (Nutt. ex Pursh) Nutt. ex Richardson var. *montana* (Nutt.) Isley [15,23] A, C, M, R, S, T; 7200–10440'; S; mc, mm, mr, pj, pp, ra, sf.
Trifolium attenuatum Greene [4,21] M, S, T; 9300–12960'; S; am, bw, mc, mm, mr.
 ♦ *Trifolium brandegeei* S. Watson [-,9] T; 9300–12700'; S; am, mr, sf.
Trifolium gymnocarpon Nutt. [-,1] T; 6600–6800'; P; ds, fr.
 * *Trifolium hybridum* L. [1,3] A, C, T; 8050–9700'; S; mr.
Trifolium longipes Nutt. var. *reflexum* A. Nelson [-,4] T; 9200–11200'; S; mm, mr, sf.
Trifolium longipes Nutt. var. *rusbyi* (Greene) H.D. Harr. [UNM-W. Moir 18] T; S.
Trifolium nanum Torr. [-,3] T; 10500–13000'; S; am.
Trifolium parryi A. Gray [-,1] T; 12400–12700'; S; am.
 * *Trifolium pratense* L. [35,13] A, C, M, S, T; 6540–10700'; G, S; mc, ml, mm, mr, ra.
 * *Trifolium repens* L. [25,33] A, C, M, R, S, T; 5781–11300'; G, S; fr, mc, ml, mm, mr, pp, ra.
Trifolium wormskjoldii Lehm. var. *arizonicum* (Greene) Barneby [-,4] T; 7550–9700'; S; mc, ml, mr.
Trifolium wormskjoldii Lehm. var. *wormskjoldii* [-,3] T; 7050–11000'; S; mm, mr.
Vicia americana Muhl. ex Willd. [21,26] A, C, M, R, S, T; 7200–11700'; S; br, bw, mc, mm, mr, ra, sf.
Vicia ludoviciana Nutt. ex Torr. & A. Gray var. *ludoviciana* [1,-] A; 6200'; L; pg, pj.
Vicia pulchella Kunth [9,-] A, M; 7720–9760'; S; af, mc, mm, ms, pp, ra.
 * *Vicia villosa* Roth ssp. *varia* (Host) Corb. [UNM-C.R. Hutchins 8347] T; G.
- Fagaceae**
Quercus gambelii Nutt. [43,55] A, C, M, R, S, T; 6200–10500'; G, P, S; af, br, ds, fr, mc, mm, ms, mr, pj, pp, ra.
Quercus grisea Liebm. [11,3] A, R, T; 5640–8000'; L, S; pj, pp, ra.
Quercus turbinella Greene [1,-] A; 5730'; L; pg, pj.
 × *Quercus xundulata* Torr. [6,4] A, C, S, T; 5725–8900'; L, S; br, ms, pj, pp.
- Fumariaceae**
Corydalis aurea Willd. var. *aurea* [4,14] A, C, M, S, T; 7550–10600'; S; br, mc, mm, mr, ra, sf.
Corydalis aurea Willd. var. *occidentalis* Engelm. ex A. Gray [-,7] R, T; 6600–10100'; P, S; br, ds, mc, pp.
- Gentianaceae**
Fraseria speciosa Douglas ex Griseb. [13,10] A, C, M, S, T; 7900–12000'; S; af, bw, mc, mm, sf.
Gentiana algida Pall. [1,3] M, R, T; 11990–13024'; S; am.
 ! *Gentiana aquatica* L. [-,2] T; 9600–10900'; S; mm, mr.
Gentiana bigelovii A. Gray [3,-] A, M; 9160–10000'; S; af, mc, mm.
 [Gentiana *affinis* Griseb.]
Gentiana parryi Engelm. [10,8] A, M, R, T; 9320–12000'; S; af, am, br, mm, sf.
Gentianella amarella (L.) Börner var. *acuta* (Michx.) Herder [2,16] A, M, R, T; 7840–12000'; S; am, mc, mm, mr, sf.
Gentianella amarella (L.) Börner var. *heterosepala* (Engelm.) Dorn [1,-] A; 8400–8850'; S; mm, mr.
Gentianopsis thermalis (Kuntze) H.H. Iltis [3,1] M, T; 10200–12500'; S; mm, mr, sf.
Swertia perennis L. [6,3] A, M, S, T; 9320–11333'; S; mm, mr.
- Geraniaceae**
 * *Erodium cicutarium* (L.) L'Her. ex Aiton [12,10] A, C, M, R, S, T; 5800–9320'; L, S; br, fr, ml, mm, pj, pp, ra.
Geranium caespitosum E. James [44,24] A, C, M, R, S, T; 6540–10500'; G, S; af, fr, mc, ml, mm, mr, ms, pj, pp, ra.
Geranium richardsonii Fisch. & Trautv. [45,55] A, C, M, R, S, T; 7000–11920'; S; af, mc, mm, mr, pp, sf.
- Grossulariaceae**
Ribes aureum Pursh var. *aureum* [1,2] A, T; 5781–8230'; G, S; fr, mr, ra.
Ribes cereum Douglas [19,30] A, C, M, R, S, T; 6500–10500'; G, P, S; ds, fr, mc, ml, mm, ms, mr, pj, pp, ra, sf.
Ribes inerme Rydb. var. *inerme* [14,7] A, C, R, S, T; 7600–11290'; S; mm, mr, ra.
Ribes leptanthum A. Gray [3,4] M, S, T; 6540–11940'; G, S; am, mr.
Ribes montigenum McClat. [13,20] A, C, M, R, S, T; 7580–12500'; S; am, mc, mm, mr, sf.
Ribes wolfii Rothrock [16,17] A, C, M, R, S, T; 8300–12300'; S; mc, mm, mr, sf.

Haloragaceae

Myriophyllum sibiricum Komarov [-,3] M, T; 9900–10800'; **S**; mr.

Heliotropaceae

Heliotropium curassavicum L. var. *obovatum* DC. [-,1] C; 8500'; **S**; ml.

Hydrangeaceae

Fendlera rupicola A. Gray var. *falcata* (Thornber) Rehder [-,1] T; 5781'; **G**; fr, ra.

Fendlera rupicola A. Gray var. *rupicola* [-,1] T; 7250–8000'; **S**; pj.

Fendlera rupicola A. Gray var. *wrightii* A. Gray [-,2] R, T; 6200–6700'; **S**; pj.

Jamesia americana Torr. & A. Gray var. *americana* [36,12] A, C, M, S, T; 7350–11650'; **P**, **S**; af, mc, mm, mr, ms, sf.

Philadelphus microphyllus A. Gray var. *microphyllus* [-,1] T; 8300–9300'; **S**; mr.

Hydrocharitaceae

Elodea canadensis Michx. [1,1] A, T; 7800–8175'; **S**; ml, mr.

Hydrophyllaceae

Hydrophyllum fendleri (A. Gray) A. Heller var. *fendleri* [21,11] A, M, R, S, T; 7620–12850'; **S**; af, bw, mc, mm, mr, sf.

Nama dichotomum (Ruiz & Pavon) Choisy [-,1] R; 8200'; **S**; pp.

Phacelia alba Rydb. [1,1] A, T; 7900–9750'; **S**; mc.

Phacelia bakeri (Brand) J.F. Macbr. [-,2] T; 11120–12960'; **S**; am, mr.

Phacelia heterophylla Pursh var. *heterophylla* [25,14] A, M, R, S, T; 7600–11650'; **S**; af, mc, mm, mr, ra, sf.

Phacelia integrifolia Torr. var. *integrifolia* [1,3] R, S, T; 6100–7950'; **G**, **S**; fr, pj, ra.

Phacelia sericea (Graham) A. Gray [UNM-H. Bobisud 126] T; **S**.

Hypericaceae

Hypericum scouleri Hook. [2,1] T; 7720–9675'; **S**; mr.

Iridaceae

Iris missouriensis Nutt. [19,18] A, C, M, R, S, T; 7050–11300'; **S**; af, mc, ml, mm, mr, ra, sf.

Sisyrinchium demissum Greene [1,2] C, R, T; 6500–7660'; **G**, **S**; ml.

Sisyrinchium montanum Greene var. *montanum* [2,1] A, T; 8400–11000'; **S**; mm, mr.

Juncaceae

Juncus arcticus Willd. var. *balticus* (Willd.) Trautv. [10,32] A, C, M, R, S, T; 5781–12000'; **G**, **P**, **S**; fr, mc, ml, mm, mr, ra, sf.

Juncus arcticus Willd. var. *mexicanus* (Willd. ex Roem. & Schult.) Balsev [3,-] S; 6840–8760'; **S**; mr.

Juncus bufonius L. [-,1] C; 8960–9040'; **S**; ra.

Juncus castaneus Sm. [UNM-J. McGrath 423] C; **S**.

Juncus confusus Cov. [-,1] T; 8100'; **S**; mr.

Juncus drummondii E. Mey. [6,10] A, M, R, S, T; 9800–12960'; **S**; am, mr, sf.

Juncus dudleyi Wiegand [4,1] A, M, T; 7700–10500'; **S**; mc, mm, mr.

Juncus ensifolius Wikstr. var. *montanus* (Engelm.) C.L. Hitchc. [17,19] A, C, M, R, S, T; 6840–12000'; **S**; mc, mm, mr, sf.

Juncus hallii Engelm. [1,-] M; 11940'; **S**; am.

Juncus interior Wiegand [4,3] A, C, M, T; 5750–8625'; **G**, **L**, **S**; fr, ml, ra.

Juncus longistylis Torr. [2,8] C, M, R, T; 6380–11209'; **G**, **S**; fr, ml, mm, mr, ra, sf.

Juncus mertensianus Bong. [2,-] M; 10800–12000'; **S**; ml, mm.

Juncus torreyi Coville [UNM-R. Sivinski et al. 2434] A; **S**.
Luzula parviflora (Ehrh.) Desv. [17,28] A, M, R, S, T; 7620–12960'; **S**; am, mc, ml, mr, sf.

Luzula spicata (L.) DC. [3,13] M, R, S, T; 9800–13024'; **S**; am, bw, mm, mr.

Juncaginaceae

Triglochin palustris L. [UNM-R. Worthington 32634] T; **S**.

Lamiaceae

Dracocephalum parviflorum Nutt. [21,11] A, C, M, R, S, T; 7200–9400'; **S**; af, br, mc, ml, mm, mr, ra.

Hedeoma drummondii Benth. [1,4] A, T; 6980–7550'; **P**, **S**; ds, fr, pj, pp, ra.

* *Marrubium vulgare* L. [7,4] A, C, M, S, T; 5800–7840'; **L**, **P**, **S**; ds, ml, pj, ra.

Mentha arvensis L. [4,6] A, C, M, T; 7240–9700'; **S**; mm, mr, ra.

Monarda fistulosa L. var. *mentifolia* (Graham) Fernald [7,8] A, S, T; 7400–11115'; **S**; mc, mm, mr, pp.

Monarda pectinata Nutt. [2,-] A; 7000–7500'; **S**; pj, pp.

* *Nepeta cataria* L. [UNM-R. Sivinski & B. Simpson 2391] S; **S**.

Prunella vulgaris L. var. *lanceolata* (W.P.C. Barton) Fernald [21,15] A, C, M, S, T; 7550–11209'; **S**; mc, ml, mm, mr, ra, sf.

Salvia reflexa Hornem. [1,1] M, T; 7350–7700'; **S**; fr, mr, ra.

Satureja vulgaris (L.) Fritsch [5,1] A, S, T; 7600–8900'; **S**; mc, mm, mr, ra.

Stachys pilosa Nutt. var. *pilosa* [-,2] C, T; 8500–9800'; **S**; mm, mr.

Teucrium laciniatum Torr. [5,-] A; 5650–6200'; **L**; pg, pj, ra.

Lemnaceae

Lemna minor L. [1,1] A, T; 7550–7880'; **S**; ml, mr.

Liliaceae (see also Alliaceae, Asparagaceae, Convallariaceae, Melanthiaceae)

Calochortus gunnisonii S. Watson var. *gunnisonii* [-,5] T; 8350–11000'; **P**, **S**; mc, mm, mr.

+ *Calochortus gunnisonii* S. Watson var. *perpulcher* Cockerell [4,-] A, M; 9840–10700'; **S**; mm, mr, sf.

Calochortus nuttallii Torr. & A. Gray [-,1] R; 6050–6350'; **G**; ds.

Lilium philadelphicum L. [2,-] A; 8325–8900'; **S**; mc, mr.

Lloydia serotina (L.) Rchb. var. *serotina* [-,3] T; 11200–12500'; **S**; am, mr.

Streptopus amplexifolius (L.) DC. [9,14] A, M, R, S, T; 7840–11960'; **S**; mc, mm, mr, sf.

Linaceae

Linum australe A. Heller var. *australe* [3,3] A, S, T; 7000–9400'; **S**; mr, pj, ra.

Linum lewisii Pursh var. *lewisii* [9,7] A, C, M, T; 5730–10660'; **L**, **S**; fr, mc, mm, mr, pg, pj, ra.

Linum pratense (Norton) Small [2,-] A; 5650–5800'; **L**; pg, pj.

Linum puberulum (Engelm.) A. Heller [3,-] A; 5650–6750'; **L**, **S**; pg, pj.

Loasaceae

Mentzelia laciniata (Rydb.) J. Darl. [1,1] A, T; 5650–7100'; **L**, **S**; pg, mr, ra.

Mentzelia multiflora (Nutt.) A. Gray var. *multiflora* [9,5] A, R, S, T; 5500–8300'; **G**, **L**, **P**, **S**; ds, fr, pj, ra.

Mentzelia nuda (Pursh) Torr. & A. Gray var. *stricta* (Osterh.) Harrington [-,2] M; 9160–9320'; **S**; ra.

Mentzelia rusbyi Wootton [1,-] M; 7700'; **S**; ms, mr.

Malvaceae

♦ *Iliamna grandiflora* (Rydb.) Wiggins [-,3] T; 7550–10100'; **S**; br.

* *Malva neglecta* Wallr. [4,1] A, M, T; 7200–9360'; **S**; mr, ra.

* *Malva parviflora* L. [UNM-W. Adair s.n., 21 Sep 1907] T; **G**.

Sidalcea candida A. Gray var. *candida* [26,17] A, C, M, S, T; 7400–10800'; **S**; mm, mr.

Sidalcea neomexicana A. Gray var. *neomexicana* [-,2] T; 7050–9400'; **S**; ml, mr.

Sphaeralcea angustifolia (Cav.) G. Don [2,-] A; 5650–7440'; **L**, **S**; ra.

Sphaeralcea coccinea (Nutt.) Rydb. var. *coccinea* [11,7] A, S, T; 5600–8100'; **G**, **L**, **S**; br, ds, fr, pg, pj, ra.

Sphaeralcea fendleri A. Gray var. *fendleri* [3,3] A, C, M, S, T; 7000–7800'; **S**; mr, pj, ra.

Sphaeralcea incana Torr. ex A. Gray var. *cuneata* Kearney [5,-] A, S; 5610–7900'; **L, S**; fr, mr, ra.

Sphaeralcea incana Torr. ex A. Gray var. *incana* [1,-] S; 6840–6880'; **S**; fr, ra.

Melanthiaceae [traditionally in Liliaceae]

Veratrum californicum T. Durand var. *californicum* [9,15] A, C, M, R, S, T; 8300–12100'; **S**; mc, mm, mr, sf.

Zigadenus elegans Pursh [27,29] A, C, M, S, T; 7050–13161'; **S**; af, am, bw, mc, mm, mr, sf.

[*Anticlea elegans* (Pursh) Rydb.]

Myrsinaceae

Lysimachia ciliata L. [UNM-J. McGrath 730] A; **S**.

Nyctaginaceae

Mirabilis albidia (Walter) Heimerl [-,3] M, T; 8300–10300'; **S**; mc, ra. *Mirabilis linearis* (Pursh) Heimerl var. *decepiens* (Standl.) S.L. Welsh [1,6] R, S, T; 7350–8320'; **S**; br, mr, pj, ra.

Mirabilis linearis (Pursh) Heimerl var. *linearis* [9,2] A, R, S, T; 5600–8575'; **G, L, P, S**; ds, fr, mr, pj, pp, ra.

Mirabilis melanotricha (Standl.) Spellb. [14,-] A, M, S; 7600–9760'; **S**; af, mc, mm, mr, ra.

Mirabilis multiflora (Torr.) A. Gray var. *multiflora* [2,1] A, T; 5650–8000'; **L, S**; fr, pg, pj.

Mirabilis oxybaphoides (A. Gray) A. Gray [UNM-E. Castetter 4034] T; **G**.

Oleaceae

Forestiera pubescens Nutt. [-,3] R, T; 5781–6540'; **G, P**; ds, fr, ra.

Menodora scabra A. Gray [4,3] A, R, S, T; 5570–7950'; **L, S**; fr, pg, pj. !* *Syringa vulgaris* L. [2,-] M, S; 7320–7700'; **S**; mr.

Onagraceae

Chamerion angustifolium (L.) Holub var. *canescens* (A.W. Wood) N. Holmgren & P. Holmgren [19,21] A, C, M, R, S, T; 7750–13024'; **S**; af, am, br, mc, mm, mr, sf.

[*Chamerion angustifolium* ssp. *circumvagum* (Mosquin) Hoch]

Epilobium anagallidifolium Lam. [2,7] A, S, T; 9400–11900'; **S**; mc, mm, mr.

[*Epilobium alpinum* L.]

Epilobium ciliatum Raf. var. *ciliatum* [20,11] A, C, M, S, T; 6840–11209'; **S**; ml, mm, mr, ra, sf.

Epilobium ciliatum Raf. var. *glandulosum* (Lehm.) Dorn [1,5] C, S, T; 7800–11500'; **S**; mc, mr.

Epilobium halleanum Haussk. [7,7] A, M, R, S, T; 7840–11940'; **S**; ml, mr, sf.

Epilobium hornemannii Rchb. var. *hornemannii* [2,6] M, T; 8790–12000'; **S**; ml, mr, sf.

Epilobium lactiflorum Haussk. [1,-] S; 8900'; **S**; mc, mr.

Epilobium saximontanum Haussk. [4,7] A, M, S, T; 8350–10986'; **S**; af, mc, mm, mr, sf.

Gayophytum diffusum Torr. & A. Gray var. *strictipes* (Hook.) Dorn [-,2] C, T; 9090–10600'; **P, S**; mc, mm.

Gayophytum ramosissimum Torr. & A. Gray [-,1] T; 9200–9750'; **S**; mc. *Oenothera albicaulis* Pursh [4,1] A, S, T; 5570–7460'; **L, P, S**; ds, fr, pg, pj.

* *Oenothera biennis* L. [5,2] A, C, T; 8000–8900'; **S**; mr, ra. *Oenothera cespitosa* Nutt. var. *macroglottis* (Rydb.) Cronquist [-,13] M, R, T; 6036–9320'; **G, P, S**; ds, fr, mr, pj, ra.

Oenothera cespitosa Nutt. var. *marginata* (Nutt. ex Hook. & Arn.) Munz [2,1] R, S, T; 6540–8550'; **G, S**; fr, pj.

Oenothera coronopifolia Torr. & A. Gray [5,7] A, C, S, T; 7200–9750'; **P, S**; ds, fr, ml, mm, mr, pj, pp, ra.

Oenothera curtifolia W.L. Wagner & Hoch [-,1] T; 7240'; **S**; ra. *Oenothera elata* Kunth var. *hirsutissima* (A. Gray ex S. Watson) Cronquist [11,2] A, S, T; 7000–8840'; **S**; pp, mc, mr, ra.

Oenothera flava (A. Nelson) Garrett [-,1] T; 9950–11000'; **S**; mr.

Oenothera hartwegii (Benth.) ssp. *fendleri* (A. Gray) W.L. Wagner & Hoch. [5,-] A; 5800–7500'; **L, S**; pg, pj, ra.

Oenothera laciniata Hill [3,-] A; 5700–8840'; **L, S**; fr, mr, ra

Oenothera pallida Lindl. var. *latifolia* Rydb. [-,1] T; 7350–7450'; **S**; fr, ra

Oenothera pallida Lindl. var. *runcinata* (Engelm.) Cronquist [1,-] A; 5840'; **L**; pg, pj.

Oenothera serrulata Nutt. [1,-] A; 6200'; **L**; pg, pj.

Oenothera suffrutescens (Seringe) W.L. Wagner & Hoch [17,6] A, R, S, T; 5650–7660'; **G, L, S**; fr, pg, pj, ml, ra.

Oenothera villosa Thunb. var. *strigosa* (Rydb.) Dorn [5,-] A, S; 7200–8400'; **S**; mr, pp, ra

Orchidaceae

Calypso bulbosa (L.) Oakes var. *americana* (R. Br.) Luer [-,4] C, T; 8555–10600'; **S**; mc.

Coeloglossum viride (L.) Hartm. var. *virescens* (Muhl. ex Willd.) Luer [1,-] S; 9860–10320'; **S**; ml, mr.

Corallorhiza maculata (Raf.) Raf. var. *maculata* [-,8] M, T; 7850–10700'; **S**; mc, sf.

Corallorhiza maculata (Raf.) Raf. var. *occidentalis* (Lindl.) Ames [12,9] A, M, S, T; 7900–10500'; **S**; af, mc, mm, mr, sf.

Corallorhiza striata Lindl. var. *striata* [2,-] A, S; 7640–9190'; **S**; mr. *Corallorhiza striata* Lindl. var. *vreelandii* (Rydb.) L.O. Williams [-,2] T; 7620–8900'; **S**; mr.

Corallorhiza trifida Chatelain [UNM-R. Jackson 2203] T; **S**.

Corallorhiza wisteriana Conrad [-,3] R, T; 8000–8800'; **S**; mc, mr, pp. ♦ *Cypripedium parviflorum* Salisb. var. *pubescens* (Willd.) O.W. Knight [1,-] A; 8630–9190'; **S**; mr.

* *Epipactis helleborine* L. [1,-] S; 7400–7760'; **S**; mr.

Goodyera oblongifolia Raf. [11,17] A, C, M, R, S, T; 7800–11500'; **S**; af, mc, mr, pp, sf.

Goodyera repens (L.) R. Br. ex W.T. Aiton [2,2] A, C, S, T; 8450–9600'; **S**; mc, sf.

Listera cordata (L.) R. Br. var. *nephrophylla* (Rydb.) Hultén [2,7] M, R, S, T; 9150–11940'; **S**; mr, sf.

Malaxis soulei L.O. Williams [1,-] A; 8400–8850'; **S**; mc.

Platanthera aquilonis Sheviak [-,3] T; 9250–11000'; **S**; mc, mr, sf.

Platanthera huronensis (Nutt.) Lindl. [1,13] C, M, S, T; 8300–12000'; **S**; mc, mr, sf.

Platanthera purpurascens (Rydb.) Sheviak & W.F. Jenn. [15,10] A, M, S, T; 7620–12500'; **S**; mc, ml, mr, sf.

Platanthera sparsiflora (S. Watson) Schltr. [2,-] A; 8325–10180'; **S**; mc, mr.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

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Spiranthes romanzoffiana Cham. [UNM-H. Mackay 6T-171] T; **S**.

- Orobanch fasciculata* Nutt. [1,5] C, M, T; 6600–9000'; **P, S**; ds, fr, mc, pj, pp, ra.
- Orobanch ludoviciana* Nutt. var. *multiflora* (Nutt.) Beck [2,1] A, T; 5610–7450'; **L, S**; fr, pj, ra.
- Orthocarpus luteus* Nutt. [3,10] A, C, M, R, T; 8350–11000'; **P, S**; af, mc, mm, mr, ms, pp.
- Orthocarpus purpureoalbus* A. Gray ex S. Watson [-,1] T; 7200–7500'; **S**; pj.
- Pedicularis bracteosa* Benth. var. *paysioniana* (Pennell) Cronquist [-,1] T; 10150–11900'; **S**; mr.
- Pedicularis canadensis* L. var. *fluviatilis* (A. Heller) Macbr. [7,11] A, C, M, S, T; 7620–10200'; **S**; af, mc, mm, mr.
- Pedicularis centranthera* A. Gray [-,14] R, T; 6232–8900'; **G, S**; fr, pj, pp.
- Pedicularis groenlandica* Retz. [9,16] A, M, S, T; 9300–12960'; **S**; am, ml, mm, mr, sf.
- Pedicularis parryi* A. Gray [6,7] A, M, S, T; 11310–12850'; **S**; am, mm, mr, sf.
- Pedicularis procera* A. Gray [22,14] A, M, S, T; 7840–12115'; **S**; af, mc, mm, mr, ra, sf.
- Pedicularis racemosa* Douglas ex Benth. var. *alba* (Pennell) Cronquist [10,20] A, M, R, S, T; 9300–12000'; **S**; am, bw, mc, mr, sf.
- Pedicularis racemosa* Douglas ex Benth. var. *racemosa* [-,1] T; 10150–11900'; **S**; mr.
- Oxalidaceae**
- Oxalis corniculata* L. var. *wrightii* (A. Gray) B.L. Turner [4,-] A, S; 7000–8300'; **S**; mr, ra.
- Oxalis metcalfei* Knuth [6,2] A, C, M, T; 7840–10500'; **S**; mm, mr.
- Papaveraceae**
- Argemone hispida* A. Gray [-,2] T; 7400–8100'; **S**; br, pj.
- Parnassiaceae** (previously Saxifragaceae)
- ♦ *Parnassia fibriata* König [-,4] T; 8450–11500'; **S**; mr.
- Parnassia palustris* L. var. *montanensis* (Fernald & Rydb. ex Rydb.) C.L. Hitchc. [UNM-J. McGrath 420] C; **S**.
- Plantaginaceae** (includes Callitricheaceae, Scrophulariaceae, in part)
- Callitriche heterophylla* Pursh var. *heterophylla* [UNM-R. Sivinski 5611] C; **S**.
- Callitriche palustris* L. [UNM-J. McGrath 936] R; **S**.
- * *Linaria dalmatica* (L.) Mill. var. *dalmatica* [1,-] S; 7380–7420'; **S**; pj, ra.
- *+ *Linaria vulgaris* Mill. [-,3] T; 7050–10900'; **S**; mm, mr.
- Mimulus glabratus* Kunth var. *jamesii* (Torr. & A. Gray ex Benth.) A. Gray [-,2] T; 8350–9400'; **S**; mc, mr.
- Mimulus guttatus* DC. [22,24] A, M, S, T; 7850–11800'; **S**; ml, mr, sf.
- Mimulus rubellus* A. Gray [-,1] T; 7600–8450'; **S**; fr, pp.
- Mimulus tilingii* Regel [4,-] A, M, S; 8200–12000'; **S**; am, ml, mr.
- Penstemon barbatus* (Cav.) Roth var. *torreyi* (Benth.) A. Gray [33,25] A, C, M, R, S, T; 5500–10500'; **G, L, P, S**; af, br, fr, mc, mm, mr, ms, pj, pp, ra.
- * *Penstemon cobrae* Nutt. [UNM-C.R. Hutchins 11490] T; **G**.
- Penstemon crandallii* A. Nelson var. *glabrescens* (Pennell) G.T. Nisbet & R.C. Jacks. [-,17] R, T; 7350–9400'; **G, S**; br, fr, mc, pj, pp, ra.
- + *Penstemon crandallii* A. Nelson var. *taosensis* (Keck) G.T. Nisbet & R.C. Jacks. [-,3] T; 7440–8900'; **P, S**; pj, pp.
- Penstemon fendleri* Torr. & A. Gray [1,-] A; 6200'; **L**; pg, pj.
- ! *Penstemon glaber* Pursh var. *alpinus* (Torr.) A. Gray [-,1] T; 10000–12200'; **S**; bw, mm.
- Penstemon griffonii* A. Nelson [2,-] S; 7300–8000'; **S**; pj.
- + *Penstemon inflatus* Crosswhite [1,6] S, T; 7550–10500'; **S**; br, mc, mr, pj, pp.
- Penstemon Jamesii* Benth. [10,-] A, S; 5600–7460'; **L, S**; pg, pj, ra.
- Penstemon linarioides* A. Gray ssp. *coloradoensis* (A. Nelson) D.D. Keck [1,-] S; 8300'; **S**; mr.
- Penstemon palmeri* A. Gray [UNM-J. McGrath 602] T; **G**.
- Penstemon rydbergii* A. Nelson var. *rydbergii* [-,2] T; 9850–10000'; **S**; mm.
- Penstemon secundiflorus* Benth. [3,6] A, R, S, T; 6380–9400'; **G, P, S**; fr, mc, mr, pj.
- Penstemon strictus* Benth. [-,7] T; 8350–10000'; **S**; mc, mm, mr.
- Penstemon unilateralis* Rydb. [-,2] C, T; 7350–7450'; **S**; br, fr, ra [Penstemon *virgatus* ssp. *asa-grayi* Crosswhite]
- Penstemon virgatus* A. Gray [3,3] A, R, S, T; 6540–8175'; **G, S**; fr, pj, pp, ra.
- Penstemon whippleanus* A. Gray [9,24] A, M, R, S, T; 8650–13024'; **S**; am, bw, mc, mm, mr, sf.
- Plantago argyraea* Morris [-,1] R; 8200'; **S**; pp.
- * *Plantago lanceolata* L. [8,5] A, C, M, R, S, T; 5500–9100'; **L, P, S**; fr, mm, mr, ra.
- * *Plantago major* L. [22,10] A, C, M, R, S, T; 5500–10700'; **L, S**; af, fr, mc, ml, mm, mr, ra.
- Plantago patagonica* Jacq. [6,4] A, R, S, T; 5700–8175'; **G, L, P, S**; ds, fr, ml, pg, pj, ra.
- Plantago tweedyi* A. Gray [2,-] M, S; 11600–11850'; **S**; am.
- ♦ *Synthyris alpina* A. Gray [-,6] T; 11500–13161'; **S**; am.
- Synthyris plantaginea* (E. James) Benth. [8,10] A, C, M, S, T; 7000–13009'; **S**; am, br, mc, mm, mr, pp.
- Veronica americana* Schwein. ex Benth. [9,7] A, S, T; 7850–11209'; **S**; ml, mr, sf.
- * *Veronica anagallis-aquatica* L. [2,2] S, T; 5781–7050'; **G, S**; fr, ml, mr.
- Veronica peregrina* L. var. *xalapensis* (Kunth.) St. John & F.W. Warren [5,2] A, S, T; 5781–10440'; **G, S**; fr, mr, ra.
- * *Veronica serpyllifolia* L. var. *humifusa* (Dickson) Vahl [7,8] A, M, S, T; 7775–12000'; **S**; af, mc, mr, sf.
- Veronica wormskjoldii* Roem. & Schult. [3,16] A, M, S, T; 9150–12960'; **S**; am, mm, mr, sf.
- Poaceae**
- Achnatherum hymenoides* (Roem. & Schult.) Barkworth [5,26] A, R, S, T; 5781–8900'; **G, L, P, S**; br, ds, fr, pg, pj, pp, ra.
- Achnatherum lettermanii* (Vasey) Barkworth [-,11] R, T; 7600–10887'; **S**; mc, mm, mr, ra, sf.
- Achnatherum lobatum* (Swallen) Barkworth [-,1] T; 7600–8300'; **S**; pj.
- ! *Achnatherum nelsonii* (Scribn.) Barkworth var. *nelsonii* [-,5] A, T; 7550–10150'; **S**; br, mc, mm, mr.
- Achnatherum perplexum* Hoge & Barkworth [1,-] A; 7720'; **S**; sf.
- Achnatherum robustum* (Vasey) Barkworth [15,11] A, C, M, S, T; 7000–10300'; **P, S**; fr, mc, ml, mm, mr, pj, pp, ra.
- Achnatherum scribneri* (Vasey) Barkworth [2,1] A, T; 7400–8000'; **P, S**; ds, mc, ra.
- * *Aegilops cylindrica* Host [3,3] A, S, T; 5781–7230'; **G, L, P, S**; fr, pj, ra.
- * *Agropyron cristatum* (L.) Gaertn. var. *cristatum* [1,8] A, R, T; 5781–9400'; **G, S**; br, ds, fr, ml, mr, pj, ra. [Agropyron *cristatum*]
- * *Agropyron cristatum* (L.) Gaertn. var. *desertorum* (Fisch. ex Link) Dorn [3,6] A, R, S, T; 6540–8760'; **G, P, S**; ds, fr, ms, pj, ra. [Agropyron *cristatum*]
- Agrostis exarata* Trin. var. *minor* Hook. [9,2] A, M, S, T; 7000–11000'; **S**; mm, mr, sf.
- * *Agrostis gigantea* Roth [19,7] A, C, M, S, T; 6840–10300'; **S**; af, mc, ml, mm, mr, ra.
- Agrostis idahoensis* Nash [UNM-H. Mackay 6T-136] T; **S**.
- Agrostis scabra* Willd. [28,37] A, C, M, R, S, T; 7000–13024'; **S**; br, bw, mc, mm, mr, ms, pp, sf.
- * *Agrostis stolonifera* L. [5,5] A, C, M, R, S, T; 6500–10700'; **G, S**; mc, ml, mm, mr, ra.
- Agrostis variabilis* Rydb. [1,-] A; 11240–11340'; **S**; mm, ra.

- Alopecurus aequalis* Sobol. var. *aequalis* [2,2] A, T; 7050–11209'; S; ml, mr, sf.
- * *Alopecurus pratensis* L. [-,1] T; 7050'; S; mr.
- Andropogon gerardii* Vitman ssp. *hallii* (Hack.) Wipff [1,-] A; 7000'; S; ms, pp.
- Aristida adscensionis* L. [1,-] A; 5630'; L; fr.
- Aristida divaricata* Humb. & Bonpl. ex Willd. [UNM-K. Weissenborn 14] A; S.
- Aristida havardii* Vasey [1,-] A; 5760'; L; pg.
- Aristida purpurea* Nutt. var. *fendleriana* (Steud.) Vasey [2,10] A, R, T; 6120–8350'; P, S; ds, fr, mr, pj, pp.
- Aristida purpurea* Nutt. var. *longiseta* (Steud.) Vasey [11,12] A, R, S, T; 5650–7598'; G, L, P, S; ds, fr, pg, pj, ra.
- Aristida purpurea* Nutt. var. *nealleyi* (Vasey) Allred [2,-] A; 5600–5800'; L; pj.
- Aristida purpurea* Nutt. var. *wrightii* (Nash) Allred [1,-] A; 5800'; L; pj, ra.
- * *Arrhenatherum elatius* (L.) P. Beauv. ex J. Presl & C. Presl [UNM-H. Mackay 5T-119] T; S.
- * *Avena fatua* L. [1,-] A; 5800'; L; fr, ra.
- * *Avena sativa* L. [1,-] A; 5800'; L; fr, ra.
- Beckmannia syzigachne* (Steud.) Fernald ssp. *baicalensis* (N.I. Kusnezov) T. Koyana & Kawano [UNM-N. & P. Holmgren 7245] T; S.
- Blepharoneuron tricholepis* (Torr.) Nash [18,20] A, C, M, R, S, T; 7750–12700'; S; af, am, br, mc, mm, ms, mr, pj, pp, sf.
- * *Bothriochloa ischaemum* (L.) Keng var. *ischaemum* [1,-] A; 5500'; L; fr, pj.
- Bothriochloa laguroides* (DC.) Herter ssp. *torreyana* (Steud.) Allred & Gould [4,-] A; 5610–5760'; L; fr, pg, pj.
- Bouteloua curtipendula* (Michx.) Torr. var. *caespitosa* Gould & Kapadia [3,2] A, S, T; 5700–7550'; L, P, S; fr, pj, ra.
- Bouteloua curtipendula* (Michx.) Torr. var. *curtipendula* [7,7] A, R, S, T; 5500–8763'; L, P, S; br, ds, fr, ms, pg, pj, pp, ra.
- Bouteloua dactyloides* (Nutt.) J.T. Columbus [-,1] T; 7240'; S; ra.
[*Buchloë dactyloides* (Nutt.) Engelm.]
- Bouteloua gracilis* (Willd. ex Kunth) Lag. ex Griffiths; [13,18] A, C, M, R, S, T; 5800–10115'; L, P, S; br, ds, fr, mc, mm, mr, ms, pg, pj, pp, ra.
- Bouteloua hirsuta* Lag. [4,-] A; 5700–7000'; L, S; pg, pj, pp.
- Bouteloua simplex* Lag. [-,2] T; 7200–8500'; S; mr, pj.
- Bromus carinatus* Hook. & Arn. [10,3] A, M, S, T; 6200–11500'; L, S; mc, mm, mr, ra.
- * *Bromus catharticus* Vahl [3,1] A, T; 5500–8450'; L, S; fr, mr, ra.
- Bromus ciliatus* L. [33,10] A, M, R, S, T; 7380–12050'; S; af, br, mc, mm, mr, pp, sf.
- * *Bromus inermis* Leyss. [29,39] A, C, M, R, S, T; 5800–11500'; G, L, P, S; af, br, fr, mc, ml, mm, mr, ms, pj, pp, ra, sf.
- * *Bromus japonicus* Thunb. ex Murray [11,9] A, C, R, S, T; 5700–9750'; G, L, P, S; br, fr, mc, ml, mm, pj, pp, ra.
- Bromus lanatipes* (Shear) Rydb. [2,8] A, M, T; 5650–10700'; L, P, S; fr, mc, mm, mr, ms, pj, pp, ra.
- Bromus porteri* (J.M. Coult.) Nash [5,14] A, M, S, T; 8160–10700'; S; bw, mc, mm, mr.
[*Bromus anomalus* Rupr. ex E. Fourn.]
- Bromus richardsonii* Link [-,26] C, M, T; 7400–12960'; S; af, mc, mm, ms, mr, ra, sf.
[*Bromus ciliatus* L.]
- * *Bromus tectorum* L. [9,41] A, C, M, R, S, T; 5800–9750'; G, L, P, S; br, ds, fr, mc, ml, mm, ms, mr, pj, pp, ra, sf.
- Calamagrostis canadensis* (Michx.) P. Beauv. var. *canadensis* [10,18] A, C, M, R, S, T; 7850–11940'; S; am, mc, mm, mr, sf.
- Calamagrostis purpurascens* R. Br. var. *purpurascens* [-,6] T; 11800–12850'; S; am, sf.
- Calamagrostis stricta* (Timm) Koeler ssp. *inexpansa* (A. Gray) C.W. Greene [-,1] T; 8700–9700'; S; mm.
- Catabrosa aquatica* (L.) P. Beauv. var. *aquatica* [UNM-J. McGrath 434] C; S.
- Cenchrus longispinus* (Hack.) Fernald [2,-] A; 5500–5610'; L; fr, ra.
- Chloris verticillata* Nutt. [2,-] A; 5500–5800'; L; fr, ra.
- * *Chloris virgata* Sw. [1,-] A; 8900–9500'; S; mc.
- Cinna latifolia* (Trev. ex Goepf.) Griseb. [4,2] A, C, S, T; 7850–10500'; S; mr.
- * *Dactylis glomerata* L. [30,37] A, C, M, R, S, T; 5800–10900'; G, L, P, S; fr, mc, ml, mm, mr, pj, pp, ra, sf.
- Danthonia intermedia* Vasey [5,12] A, M, R, T; 9270–12548'; S; am, mm, mr, sf.
- Danthonia parryi* Scribn. [14,19] A, C, M, R, S, T; 7650–12000'; S; am, br, bw, mc, mm, pp, ra.
- Danthonia spicata* (L.) P. Beauv. ex Roem. & Schult. [9,3] A, C, R, S, T; 7720–9600'; S; mc, mr, pp, ra.
- Deschampsia cespitosa* (L.) P. Beauv. var. *cespitosa* [15,41] A, M, R, S, T; 7050–13024'; S; am, bw, mc, ml, mm, mr, sf.
- Dichanthelium oligosanthes* (Schult.) Gould var. *scribnerianum* (Nash) Gould [1,-] A; 7720'; S; pp.
- Distichlis spicata* (L.) Greene var. *stricta* (Torr.) Scribn. [-,2] C, T; 5781–8500'; G, S; fr, ml, ra.
- * *Echinochloa crus-galli* (L.) P. Beauv. [2,-] A; 5500–5610'; L; fr, ra.
- * *Echinochloa muricata* (P. Beauv.) Fernald var. *microstachya* Wiegand [1,-] S; 7380–7420'; S; fr, ra.
- Elymus bakeri* (E.E. Nelson) Á. Löve [4,5] A, M, R, T; 10350–13024'; S; am, mm, mr, ra, sf.
- Elymus canadensis* L. var. *canadensis* [5,3] A, C, M, S, T; 5500–9320'; L, S; fr, mr, pj, pp, ra.
- * *Elymus elongatus* (Host) Runem. var. *elongatus* [1,-] M; 8040–8700'; S; mc, ra.
- Elymus elymoides* (Raf.) Swezey var. *brevifolius* (J.G. Sm.) Dorn [39,68] A, C, M, R, S, T; 5730–10850'; G, L, P, S; br, ds, fr, mc, ml, mm, mr, pg, pj, pp, ra, sf.
[*Elymus longifolius* (Smith) Gould]
- Elymus glaucus* Buckley var. *glaucus* [7,8] A, C, M, S, T; 7840–10500'; S; af, mc, mm, mr.
[*Elymus hispidus* ssp. *barbulatus* (Schur) Melderis]
- * *Elymus hispidus* (Opiz) Melderis var. *hispidus* [7,7] A, C, M, R, S, T; 7500–10580'; S; br, mc, mr, ra.
- * *Elymus hispidus* (Opiz) Melderis var. *ruthenicus* (Griseb.) Dorn [1,4] M, R, T; 7240–8880'; S; mc, pp, ra.
- * *Elymus junceus* Fisch. [4,-] A, S; 7000–7460'; S; pj, ra.
[*Psathyrostachys juncea* (Fisch.) Nevskii]
- × *Elymus xpseudorepens* (Scribn. & J.G. Sm.) Barkworth & Dewey [6,-] A, M, S; 7900–12100'; S; mc, mm, ra.
- * *Elymus repens* (L.) Gould [2,-] A; 7900–8000'; S; mc, mr, ra.
- Elymus scribneri* (Vasey) M.E. Jones [3,9] M, S, T; 10990–12900'; S; am.
- Elymus smithii* (Rydb.) Gould [11,13] A, C, M, R, S, T; 5570–9675'; G, L, P, S; br, ds, fr, mc, mm, mr, ms, pj, pp, ra
- Elymus trachycaulus* (Link) Gould ex Shinners ssp. *subsecundus* (Link) Á. Löve & D. Löve [-,4] M, T; 8000–10700'; S; af, mc, mm, ms.
- Elymus trachycaulus* (Link) Gould ex Shinners ssp. *trachycaulus* [24,18] A, C, M, S, T; 6500–11700'; P, S; fr, mc, mm, mr, pj, pp, ra.
- Elymus trachycaulus* (Link) Gould ex Shinners ssp. *violaceus* (Hornem.) Á. Löve & D. Löve [5,15] A, M, T; 8300–12850'; S; am, mc, mm, mr, ra, sf.
- Eragrostis curtipedunculata* Buckley [1,-] A; 5560–5840'; L; pj.
- * *Eragrostis curvula* (Schrad.) Nees var. *curvula* [4,-] A; 5570–7840'; L, S; fr, pj, ra.
- Eragrostis intermedia* Hitchc. [2,-] A; 5700–5840'; L; fr, pj.
- Erioneuron pilosum* (Buckley) Nash [2,-] A; 6120–6750'; S; fr, pj.
- Festuca arizonica* Vasey [5,10] A, C, M, T; 7650–10700'; S; af, br, mc, mm, pp, ra.

- * *Festuca arundinacea* Schreb. [5,6] A, C, M, R, S, T; 5781–9100'; **G, P, S**; fr, mm, mr, ra.
- Festuca brachyphylla* Schult. ex Schult. & Schult. f. ssp. *coloradensis* Fred. [-,13] C, T; 7850–12960'; **S**; am, mr, pp.
- Festuca calligera* (Piper) Rydb. [-,1] T; 10360–10440'; **S**; ra.
- Festuca earlei* Rydb. [-,5] R, T; 9800–12050'; **S**; mm, mr, sf.
- Festuca idahoensis* Elmer [3,10] A, T; 7215–11000'; **S**; bw, mm, mr, pj, pp, ra.
- Festuca minutiflora* Rydb. [4,-] A, M, S; 11240–12430'; **S**; am, mm.
- * *Festuca pratensis* Huds. [5,2] A, S, T; 5800–9360'; **L, S**; fr, mr, ra.
- Festuca rubra* L. ssp. *rubra* [-,3] M, T; 9900–10800'; **S**; sf.
- Festuca saximontana* Rydb. var. *saximontana* [1,11] A, M, R, T; 8160–13024'; **S**; am, mc, mm, sf.
- Festuca sororia* Piper [1,2] A, T; 7850–12115'; **S**; mc, mr, sf.
- Festuca thurberi* Vasey [9,22] A, M, T; 8450–12960'; **S**; am, bw, mc, mm, mr, sf.
- * *Festuca trachyphylla* (Hack.) Krajina [-,2] C, T; 7650–9700'; **S**; mc, mm.
- Glyceria elata* (Nash ex Rydb.) M.E. Jones [-,1] C; 8500–8750'; **S**; mr.
- Glyceria grandis* S. Watson [1,2] M, T; 8300–9300'; **S**; mr.
- Glyceria striata* (Lam.) Hitchc. [18,16] A, C, M, S, T; 7810–10500'; **S**; af, mc, ml, mr, sf.
- Helictotrichon hookeri* (Scribn.) Henrard [-,1] T; 9250–9500'; **S**; mm.
- Hesperostipa comata* (Trin. & Rupr.) Barkworth var. *comata* [3,12] R, S, T; 5781–9400'; **G, P, S**; br, ds, fr, mc, mm, mr, pj, pp, ra.
- Hesperostipa comata* (Trin. & Rupr.) Barkworth var. *intermedia* (Scribn. & Tweedy) Dorn [-,2] T; 7850–9750'; **S**; mm, pp.
- Hesperostipa neomexicana* (Thurb. ex J.M. Coult.) Barkworth [4,-] A; 5700–6750'; **L, S**; fr, pg, pj.
- Hierochloë odorata* (L.) P. Beauv. [-,1] C; 8000–8104'; **S**; mm.
- Hilaria jamesii* (Torr.) Benth. [12,7] A, R, S, T; 5600–8000'; **G, L, P, S**; br, ds, fr, pg, pj.
- [*Pleuraphis jamesii* Torr.]
- Hopia obtusa* (Kuntz) Zuloaga & Morrone [2,-] A; 5570–5840'; **L**; fr, pg.
- Hordeum brachyantherum* Nevski [-,2] T; 9250–10500'; **S**; mr.
- Hordeum jubatum* L. ssp. *intermedium* Bowden [2,7] A, C, R, T; 6380–10500'; **G, S**; fr, mc, ml, mr, pp, ra.
- Hordeum jubatum* L. ssp. *jubatum* [2,7] A, C, M, S, T; 5800–10500'; **L, S**; br, fr, mc, ml, mr, ra.
- * *Hordeum murinum* L. ssp. *glaucum* (Steud.) Tzvelev [1,2] A, T; 5781–7200'; **G, L, S**; fr, ml, mr, ra.
- Hordeum pusillum* Nutt. [1,-] A; 6200'; **L**; pg, ra.
- Koeleria macrantha* (Ledeb.) Schult. [35,57] A, C, M, R, S, T; 5700–12960'; **G, L, P, S**; af, br, fr, mc, mm, mr, pj, pp, ra, sf.
- * *Lolium perenne* L. var. *aristatum* Willd. [3,1] A, C, S; 7650–10800'; **S**; br, mr, ml, ra.
- * *Lolium perenne* L. var. *perenne* [2,2] A, T; 8350–11340'; **S**; mc, mm, mr, ra.
- Lycurus setosus* (Nutt.) C. Reeder [6,-] A, S; 5700–7000'; **L, S**; ds, pg, pj, pp.
- Melica porteri* Scribn. var. *porteri* [17,7] A, C, M, S, T; 7760–12115'; **S**; mc, mr, sf.
- Muhlenbergia arenicola* Buckley [2,-] A; 5650–5840'; **L**; pg, pj.
- Muhlenbergia asperifolia* (Nees & Meyen ex Trin.) Parodi [2,-] A, R; 5610–6620'; **G, L**; fr.
- Muhlenbergia filiformis* (Thurb. ex S. Watson) Rydb. [UNM-A. Fleck s.n., 19 Sep 1964] T; S.
- Muhlenbergia minutissima* (Steud.) Swallen [-,1] T; 8160–9400'; **S**; ra.
- Muhlenbergia montana* (Nutt.) Hitchc. [11,13] A, C, M, R, S, T; 7560–11500'; **P, S**; af, bw, mc, mm, mr, ms, pj, pp, ra.
- Muhlenbergia pauciflora* Buckley [2,-] A, S; 5650–8320'; **L, S**; ds, pj.
- Muhlenbergia racemosa* (Michx.) Britton, Sterns, & Poggenb. [1,-] A; 7750'; **S**; mr, ra.
- Muhlenbergia repens* (J. Presl) Hitchc. [UNM-R. Sivinski 2627] A; **S**.
- Muhlenbergia richardsonis* (Trin.) Rydb. [-,1] T; 9200–9500'; **S**; mm.
- Muhlenbergia torreyi* (Kunth) Hitchc. ex Bush [4,1] A, T; 5700–7500'; **L, S**; ds, pg, pj.
- Muhlenbergia wrightii* Vasey ex J.M. Coult. [6,4] A, C, M, T; 7200–9360'; **P, S**; ds, fr, mr, ms, pj, ra.
- Munroa squarrosa* (Nutt.) Torr. [1,4] A, T; 5610–7550'; **L, P, S**; ds, fr, pj, ra.
- Nassella viridula* (Trin.) Barkworth [-,2] T; 6500–7450'; **P, S**; fr, ra.
- Oryzopsis asperifolia* Michx. [4,13] A, C, M, R, S, T; 7550–10200'; **S**; br, mc, mr, pp, sf.
- Panicum bulbosum* Kunth [5,1] A, C, M; 5650–8200'; **L, S**; pg, mr, ms, pp.
- Panicum capillare* L. var. *brevifolium* (Rydb.) Shear [1,1] S, T; 6840–7500'; **S**; fr, pj, ra.
- Phalaris arundinacea* L. var. *arundinacea* [1,3] A, T; 5781–8400'; **G, S**; fr, ml, mr, ra.
- Phleum alpinum* L. var. *alpinum* [10,29] A, M, R, S, T; 8450–13024'; **S**; am, bw, mc, mm, mr, sf.
- * *Phleum pratense* L. var. *pratense* [34,27] A, C, M, S, T; 7000–11750'; **S**; af, mc, ml, mm, mr, pp, ra.
- Phragmites australis* (Cav.) Trin. ex Steud. ssp. *berlandieri* (E. Fourn.) Saltonstall & Hauber [1,-] A; 7900'; **S**; ml.
- Piptatherum micranthum* (Trin. & Rupr.) Barkworth [7,20] A, R, S, T; 5650–9500'; **G, L, P, S**; br, ds, fr, mc, pj, pp.
- Piptochaetium pringlei* (Beal) Parodi [3,-] A; 8000–8500'; **S**; mr, ms, pp.
- Poa alpina* L. [1,2] S, T; 9800–12625'; **S**; am, sf.
- * *Poa annua* L. [8,1] A, M, S, T; 8600–11340'; **S**; mr, ra.
- Poa arctica* R. Br. var. *aperta* (Scribn. & Merr.) Soreng [-,2] R, T; 11120–13024'; **S**; am, mr.
- Poa arctica* R. Br. var. *grayana* (Vasey) Á. Löve, D. Löve, & B.M. Kapoor [-,3] T; 10500–12700'; **S**; am, sf.
- Poa bigelovii* Vasey & Scribn. [1,-] A; 6200'; **L**; pg.
- * *Poa compressa* L. [17,11] A, C, M, R, S, T; 7240–10700'; **S**; af, mc, ml, mm, mr, ms, pp, ra.
- Poa fendleriana* (Steud.) Vasey [2,51] A, C, R, S, T; 6100–12850'; **G, P, S**; am, br, bw, ds, fr, mc, mm, mr, pj, pp, ra, sf.
- [*Poa fendleriana* subspecies]
- Poa glauca* Vahl var. *glauca* [-,3] T; 10603–12050'; **S**; am, sf.
- Poa glauca* Vahl var. *rupicola* (Nash ex Rydb.) B. Boivin [2,10] S, T; 11120–12960'; **S**; am, mr.
- Poa interior* Rydb. [-,13] M, T; 8500–12850'; **S**; am, bw, mc, mm, mr, sf.
- Poa leptocoma* Trin. [3,9] M, R, T; 9400–11940'; **S**; mc, mr, sf.
- Poa occidentalis* Vasey [3,1] A, M, T; 9340–11300'; **S**; af, mc, mm, sf.
- Poa palustris* L. [1,6] A, C, T; 8000–9300'; **S**; mc, ml, mr.
- * *Poa pratensis* L. [32,65] A, C, M, R, S, T; 5781–12200'; **G, P, S**; am, af, bw, br, fr, mc, ml, mm, ms, mr, pj, pp, ra, sf.
- [*Poa pratensis* subspecies]
- Poa reflexa* Vasey & Scribn. ex Vasey [-,3] T; 9700–12000'; **S**; sf.
- Poa secunda* J. Presl [-,2] T; 8500–10000'; **S**; mc, mr.
- [*Poa secunda* subspecies]
- * *Polygonum monspeliensis* (L.) Desf. [2,-] A, R; 5500–6620'; **G, L**; fr, ml.
- Puccinellia nuttalliana* (Schult.) Hitchc. [-,1] T; 8175'; **S**; ml.
- Schedonnardus paniculatus* (Nutt.) Trel. [3,-] A, S; 5730–7240'; **L, S**; pg, pj, ra.
- Schizachne purpurascens* (Torr.) Swallen [2,1] A, T; 8700–9700'; **S**; mm, mr.
- Schizachyrium scoparium* (Michx.) Nash var. *scoparium* [3,10] A, C, R, T; 5650–8500'; **L, P, S**; br, fr, mc, ms, pj, pp, ra.
- * *Secale cereale* L. [1,1] R, S; 6232–8540'; **G, S**; br, fr, pj.
- Setaria leucopila* (Scribn. & Merr.) K. Schum. [1,-] A; 5500'; **L**; fr.
- * *Setaria viridis* (L.) P. Beauv. [-,1] M; 9160–9320'; **S**; ra.

Sorghastrum nutans (L.) Nash [UNM-D. Kennemore 2222] A; L.
 * *Sorghum halepense* (L.) Pers. [1,-] A; 5500'; L; fr.
Sphenopholis obtusata (Michx.) Scribn. var. *obtusata* [1,-] R;
 6500–6620'; G; ml.
Sporobolus airoides (Torr.) Torr. [-,2] T; 7100–7240'; S; mr, ra
Sporobolus cryptandrus (Torr.) A. Gray [5,7] A, C, R, S, T; 5570–9400';
 L, S; br, ds, fr, pj, pp, ra.
Torreyochloa pallida (Torr.) G.L. Church var. *pauciflora* (J. Presl) J.L.
 Davis [1,-] S; 8940'; S; mr.
Trisetum montanum Vasey [21,13] A, C, M, S, T; 7840–11800'; S; af,
 mc, mm, mr, sf.
Trisetum spicatum (L.) K. Richt. [9,29] A, M, R, S, T; 8450–13024'; S;
 am, mc, mm, mr, sf.
Vulpia octoflora (Walter) Rydb. [2,6] A, R, S, T; 6050–7598'; G, L, P,
 S; fr, pg, pj, ra.
 [Vulpia octoflora varieties]

Polemoniaceae

Aliciella pinnatifida (Nutt. ex A. Gray) J.M. Porter [1,-] S; 8200–8320';
 S; mr.
Collomia linearis Nutt. [-,4] T; 8700–11500'; S; mc, mm.
Eriastrum diffusum (A. Gray) H. Mason [-,2] R, T; 6036–7450'; P;
 ds, fr, pj.
Gilia ophthalmoides Brand [-,4] R, T; 7050–8450'; G, S; fr, pj, pp.
Gilia sinuata Douglas ex Benth. [-,1] T; 8400–8900'; S; mc.
Ipomopsis aggregata (Pursh) V.E. Grant ssp. *candida* (Rydb.) V.E. Grant
 & A.D. Grant [-,4] C, T; 8500–10300'; S; mm, ra.
Ipomopsis aggregata (Pursh) V.E. Grant ssp. *collina* (Greene) Wilken
 & Allard [2,2] M, T; 7700–11200'; S; mc, mm, sf.
Ipomopsis aggregata (Pursh) V.E. Grant ssp. *formosissima* (Greene)
 Wherry [37,26] A, C, M, R, S, T; 5800–11209'; L, P, S; af, br, fr,
 mc, mm, mr, ms, pj, pp, ra, sf.
Ipomopsis laxiflora (J.M. Coult.) V.E. Grant [4,1] A, R; 5610–6500';
 L, P; ds, fr, pg, pj.
Ipomopsis longiflora (Torr.) V.E. Grant ssp. *neomexicana* Wilken [1,-]
 A; 5500'; L; pj.
Ipomopsis multiflora (Nutt.) V.E. Grant [-,2] R, T; 7350–9700'; S; pj, ra.
Linanthus pungens (Torr.) J.M. Porter & L.A. Johnson [-,2] T; 6900–
 7450'; P, S; ds, mc, pp.
Microsteris gracilis (Hook.) Greene [-,3] R, T; 7050–8100'; G, S; fr, pj.
Phlox condensata (A. Gray) E. Nelson [3,-] S; 12160–12500'; S; am.
Phlox longifolia Nutt. ssp. *longifolia* [1,10] R, S, T; 6976–8100'; G,
 P, S; br, fr, pj, ra.
Phlox nana Nutt. [15,-] A, S; 5700–8000'; L, S; pg, pj, pp, ra.
Phlox pulvinata (Wherry) Cronquist [-,3] T; 11500–13161'; S; am.
Polemonium brandegei (A. Gray) Greene [UNM-E. Castetter & H.
 Dittmer 9827] T; S.
Polemonium foliosissimum A. Gray [10,3] A, M, T; 8000–10800'; S;
 ml, mm, mr.
 ! *Polemonium occidentale* Greene var. *occidentale* [-,1] T; 9475';
 S; mm, mr.
Polemonium pulcherrimum Hook. var. *delicatum* (Rydb.) Cronquist
 [1,12] A, T; 9800–11960'; S; bw, mc, mr, sf.
Polemonium viscosum Nutt. [1,4] S, T; 11500–13000'; S; am.

Polygalaceae

Polygala alba Nutt. var. *alba* [2,-] A; 5700–5800'; L; pg, pj.

Polygonaceae

Bistorta bistortoides (Pursh) Small [7,16] A, M, R, S, T; 9300–13024';
 S; am, mm, mr, sf.
Bistorta vivipara (L.) S.F. Gray [2,9] A, M, T; 8300–13009'; S; am,
 ml, mr, sf.
Eriogonum alatum Torr. var. *alatum* [12,6] A, M, R, S, T; 5800–9640';
 G, L, P, S; br, fr, mc, mm, ms, pj, pp, ra.
Eriogonum annuum Nutt. [1,-] A; 5570–5600'; L; fr.

Eriogonum jamesii Benth. var. *jamesii* [16,25] A, C, M, R, S, T;
 5600–11200'; L, P, S; br, ds, fr, mm, mr, pj, pp, ra.
Eriogonum lachnogynum Torr. ex Benth. var. *lachnogynum* [1,-] A;
 5730'; L; ds, pj.
Eriogonum microthecum Nutt. var. *simpsonii* (Benth.) Reveal [-,3] R,
 T; 7200–7500'; S; fr, pj, ra.
Eriogonum racemosum Nutt. [3,13] A, R, S, T; 7000–9400'; P, S; br,
 mc, mr, pj, pp, ra.
Eriogonum tenellum Torr. [5,-] A; 5570–6200'; L; fr, pg, pj.
 * *Fallopia baldschuanica* (Regel) Holub [UNM-C.R. Hutchins 5887]
 R; G.
 * *Fallopia convolvulus* L. [UNM-R. Sivinski 2427] A; S.
Oxyria digyna (L.) Hill [-,3] T; 11150–12700'; S; am, bw, sf.
 * *Pescicaria lapathifolia* (L.) A. Gray [2,2] A, C, T; 5500–8194'; L, S;
 fr, ml, ra.
 * *Pescicaria maculosa* A. Gray [2,-] S; 6840–7000'; S; fr, ra.
 * *Polygonum aviculare* L. [8,8] A, M, R, S, T; 6540–10887'; G, S; ds,
 fr, ml, mm, mr, ra.
Polygonum douglasii Greene [2,8] A, M, R, T; 7200–12050'; S; af,
 mc, mm, mr, ra, sf.
Polygonum ramosissimum Michx. var. *ramosissimum* [-,2] T;
 8700–9700'; S; mc.
Polygonum sawatchense Small [-,3] R, T; 7200–8550'; P, S; pj, pp, ra.
 * *Rumex acetosella* L. [21,10] A, M, S, T; 7000–11700'; S; af, mc,
 mm, mr, ra.
Rumex altissimus A.W. Wood [1,-] A; 5700–5800'; L; fr, ra.
 * *Rumex crispus* L. ssp. *crispus* [23,5] A, C, M, S, T; 6540–9680'; G,
 S; mc, ml, mr, ra.
Rumex densiflorus Osterh. [-,3] C, T; 8500–10986'; S; mc, mr.
Rumex fueginus Phil. [-,1] C; 8194'; S; ml.
 [Rumex maritimus L.]
Rumex mexicanus Meisn. [UNM-E. Castetter 3879] T; G.
Rumex occidentalis S. Watson [-,9] M, R, T; 7240–11500'; S; ml, mr, ra.
 * *Rumex patiens* L. [3,-] A, S; 5800–7580'; L, S; fr, mr, ra.
 * *Rumex pulcher* L. [-,1] T; 7350–7450'; S; ra.
Rumex triangulivalvis (Danser) Rech. f. [2,2] A, T; 7200–10660'; S;
 ml, mr, ra.

Portulacaceae

Claytonia megarhiza (A. Gray) Parry ex S. Watson [-,2] T; 11500–
 13000'; S; am.
Lewisia nevadensis (A. Gray) B.L. Rob. [UNM-R. Sivinski 3921] S; S.
Montia chamissoi (Ledeb. ex Spreng.) Greene [-,2] T; 9150–10500';
 S; mr.
Pheimeranthus brevicaulis (S. Watson) Kiger [UNM-R. Sivinski 4556]
 A; S.
Pheimeranthus parviflorus (Nutt) Kiger [1,-] A; 7900'; S; ml, ms.
 * *Portulaca oleracea* L. [2,2] A, S, T; 5700–9400'; L, S; fr, ml, pj, pp,
 ra.
 [Portulaca oleracea subspecies]

Potamogetonaceae (includes Zannichelliaceae)

Potamogeton diversifolius Raf. [1,-] A; 7200–7240'; S; ml.
Potamogeton foliosus Raf. var. *foliosus* [UNM-J. McGrath 444] C; S.
Potamogeton gramineus L. [UNM-J. McGrath 442] C; S.
Potamogeton natans L. [-,1] T; 9375–10625'; S; mr.
Potamogeton nodosus Poir. [1,-] A; 7200–7240'; S; ml.
Potamogeton pusillus L. var. *pusillus* [UNM-R. Sivinski & B. Simpson
 2301] A; S.
Zannichellia palustris L. [UNM-J. McGrath 437] C; S.

Primulaceae

Androsace chamaejasme Wulfen. var. *arctica* Kunth [-,6] T; 10500–
 13000'; S; am, mm.
 [Androsace chamaejasme Wulfen ssp. *lehmanniana* (Spreng.)
 Hultén]

Androsace occidentalis Pursh [-,1] R; 7150'; **S**; pj, ra.
Androsace septentrionalis L. [18,62] A, C, M, R, S, T; 6200–12960'; **G, P, S**; am, br, ds, mc, mm, ms, mr, pj, pp, sf.
Dodecatheon pulchellum (Raf.) Merr. var. *pulchellum* [13,13] A, M, R, S, T; 7740–11500'; **S**; mc, ml, mm, mr, sf.
 [Primula pauciflora (Greene) Mast & Reveal]
Primula angustifolia Torr. [-,4] T; 11500–13009'; **S**; am.
Primula parryi A. Gray [2,4] M, S, T; 9800–12430'; **S**; am, mr, sf.
Primula rusbyi Greene [UNM-E. Castetter 3301-A] A; **S**.

Ranunculaceae

Aconitum columbianum Nutt. var. *columbianum* [31,27] A, C, M, S, T; 7400–12960'; **S**; mm, mr, sf.
Actaea rubra (Aiton) Willd. var. *arguta* (Nutt.) Lawson [26,15] A, C, M, R, S, T; 7775–11115'; **S**; af, mc, mm, mr.
 [Actaea rubra ssp. *arguta* (Nutt.) Hultén]
Anemone canadensis L. [-,3] T; 8350–9400'; **S**; mc, mm, mr.
Anemone cylindrica A. Gray [1,-] A; 7720'; **S**; pp.
Anemone multifida Poir. [-,4] T; 9250–10500'; **S**; mc, mm, mr.
Aquilegia coerulea E. James var. *coerulea* [12,18] A, M, S, T; 7720–12960'; **S**; af, am, bw, mc, ml, mr, sf.
Aquilegia elegantula Greene [8,20] A, C, R, S, T; 7550–11500'; **S**; br, mc, mr, pp, sf.
Caltha leptosepala DC. [9,15] A, M, S, T; 9300–12960'; **S**; am, ml, mm, mr.
Clematis columbiana (Nutt.) Torr. & A. Gray var. *columbiana* [24,23] A, C, M, R, S, T; 7250–10600'; **P, S**; am, br, ds, mc, mr, pp.
Clematis hirsutissima Pursh var. *scottii* (Porter) E.O. Erickson [-,1] T; 7315–7500'; **P**; ds.
Clematis ligusticifolia Nutt. [3,4] A, S, T; 5570–8400'; **L, P, S**; fr, mr, ra.
 ♦ *Delphinium alpestre* Rydb. [-,4] T; 11120–12960'; **S**; am.
Delphinium barbeyi (Huth) Huth [3,10] M, S, T; 8450–12000'; **S**; mc, mr, sf.
Delphinium nuttallianum Pritz var. *nuttallianum* [-,3] R, T; 7600–8900'; **S**; pj, pp.
Delphinium ramosum Rydb. [-,4] C, T; 7840–11500'; **S**; mc, mr, sf.
Delphinium robustum Rydb. [UNM-M. Schiebout 8846] M; **S**.
 +♦ *Delphinium sapellonis* Cockerell [9,3] A, M, T; 7840–10800'; **S**; af, mc, mm, mr, sf.
Delphinium wootonii Rydb. [3,-] A, S; 5700–7200'; **L, S**; pg, pj, ra.
Pulsatilla patens (L.) Mill. ssp. *multifida* (Pritz.) Zamels [-,5] C, T; 7350–10600'; **P, S**; ds, mm, pp.
Ranunculus abortivus L. [UNM-R. Fletcher 6252] T; **S**.
Ranunculus aquatilis L. var. *diffusus* With. [-,5] C, T; 8000–9500'; **S**; ml, mr, pp.
Ranunculus cardiophyllus Hook. [UNM-J. Williams 53] T; **S**.
Ranunculus cymbalaria Pursh [-,2] C, T; 8175–8194'; **S**; ml.
Ranunculus gmelinii DC. [UNM-E. Castetter 4465] C; **S**.
Ranunculus inamoenus Greene var. *inamoenus* [4,9] A, R, S, T; 8400–11500'; **S**; bw, mc, mm, mr, sf.
Ranunculus macauleyi A. Gray [2,8] S, T; 10500–13000'; **S**; am, mr, sf.
Ranunculus macounii Britton [6,-] A, M, S; 7740–8940'; **S**; mc, mr.
Ranunculus pensylvanicus L. f. [1,-] S; 8250–8540'; **S**; mr, ra.
Ranunculus ranunculinus (Nutt.) Rydb. [2,1] A, C; 7900–8575'; **S**; mc, pp, ra.
 !* *Ranunculus repens* L. [1,-] A; 8000'; **S**; mr, ra.
Ranunculus scleratus L. var. *multifidus* Nutt. [UNM-E. Castetter 4473] C; **S**.
 * *Ranunculus testiculatus* Crantz [-,1] T; 7350–7450'; **P**; ds.
Ranunculus uncinatus D. Don ex G. Don [-,3] T; 7775–8150'; **S**; ml, mr.
 [Ranunculus uncinatus var. *earlei* (Greene) L.D. Benson]
Thalictrum alpinum L. [-,2] T; 11500–13009'; **S**; am.
Thalictrum fendleri Engelm. ex A. Gray [25,20] A, C, M, R, S, T; 7400–12050'; **S**; br, bw, mc, mm, mr, ra.
Thalictrum revolutum DC. [UNM-J. McGrath 729] A; **S**.

Trautvetteria carolinensis (Walter) Vail [5,4] A, M, R, S, T; 8450–11900'; **S**; ml, mr, sf.

Rhamnaceae

Ceanothus fendleri A. Gray [13,6] A, C, M, S, T; 7650–10500'; **S**; br, mc, ms, pp.
Rosaceae
Agrimonia gryposepala Wallr. [2,-] A; 7900–8230'; **S**; mc, mr.
Agrimonia striata Michx. [11,2] A, C, S, T; 7580–10500'; **S**; mr.
 * *Alchemilla vulgaris* L. [UNM-R. Fletcher 8429] T; **S**.
Amelanchier alnifolia (Nutt.) Nutt. ex Roem. var. *alnifolia* [12,7] A, M, R, S, T; 7620–10500'; **S**; mc, mr, sf.
Amelanchier utahensis Koehne [-,2] T; 7250–9600'; **S**; br, pj.
Cercocarpus montanus Raf. var. *montanus* [25,40] A, C, M, R, S, T; 5650–11500'; **G, L, P, S**; br, ds, fr, mc, mm, mr, ms, pj, pp, ra.
Crataegus macracantha Lodd. ex Loud. var. *occidentalis* (Britton) Eggleston [2,-] A, S; 7760–8400'; **S**; mr, ms.
Dasiphora fruticosa (L.) Rydb. [23,29] A, C, M, R, S, T; 8310–13024'; **S**; af, am, fr, mc, ml, mm, ms, mr, ra, sf.
Fallugia paradoxa (D. Don) Endl. ex Torr. [8,18] A, R, S, T; 5570–8900'; **G, L, P, S**; br, ds, fr, mc, pj, pp, ra.
Fragaria vesca L. [16,18] A, C, M, R, S, T; 7350–11900'; **S**; am, br, mc, mr, pp, sf.
Fragaria virginiana Mill. [7,33] A, C, R, S, T; 8000–11650'; **S**; bw, br, mc, mm, mr, sf.
Geum aleppicum Jacq. [13,4] A, M, S, T; 7760–10800'; **S**; af, mc, mm, mr.
Geum macrophyllum Willd. var. *perincisum* (Rydb.) Raup [13,13] A, M, R, S, T; 7050–11209'; **S**; mc, mr, sf.
Geum rivale L. [-,2] T; 8450–10500'; **S**; mr.
Geum rossii (R. Br.) Ser. var. *turbinatum* (Rydb.) C.L. Hitchc. [5,17] A, M, R, T; 9800–13161'; **S**; am, mm, mr.
Geum triflorum Pursh var. *ciliatum* (Pursh) Fass. [-,2] T; 9850–10500'; **S**; mm, mr.
Holodiscus dumosus (Nutt. ex Hook.) A. Heller [14,17] A, C, M, R, S, T; 7560–11200'; **P, S**; af, mc, mr, ms, pp, ra, sf.
 * *Malus pumila* Mill. [6,2] A, S, T; 6840–8450'; **S**; mr, ra.
Physocarpus monogynus (Torr.) J.M. Coulter. [21,3] A, M, S, T; 7720–10200'; **S**; af, mc, mr, ra.
Potentilla ambigens Greene [1,-] S; 7600'; **S**; mr.
Potentilla anserina L. [1,11] A, C, M, R, T; 5500–11000'; **G, L, P, S**; fr, ml, mm, mr, ra.
Potentilla concinna Richardson var. *bicrenata* (Rydb.) S.L. Welsh & B.C. Johnston. [-,1] T; 7700–8555'; **P**; mc.
 [Potentilla bicrenata Rydb.]
Potentilla concinna Richardson var. *concinna* [2,8] A, C, M, R, T; 8380–13000'; **S**; am, mc, mm, pp, sf.
Potentilla crinita A. Gray var. *crinita* [2,-] S; 7380–8550'; **S**; mr, ra.
Potentilla diversifolia Lehm. var. *diversifolia* [1,13] M, R, T; 7850–12960'; **S**; am, af, ml, mr, sf.
 ! *Potentilla fissa* Nutt. [1,-] A; 10000–10212'; **S**; mc.
Potentilla gracilis Douglas ex Hook. var. *glabrata* (Lehm.) C.L. Hitchc. [1,1] S, T; 9950–12430'; **S**; am, mr.
Potentilla gracilis Douglas ex Hook. var. *pulcherrima* (Lehm.) Fernald [25,24] A, C, M, R, S, T; 7840–12584'; **S**; af, am, bw, br, mc, mm, mr, ra, sf.
Potentilla hippiana Lehm. var. *hippiana* [29,28] A, C, M, R, S, T; 7000–11800'; **S**; af, am, br, mc, mm, mr, ms, pp, ra, sf.
 × *Potentilla hippiana* Lehm. ×P. *gracilis* Douglas ex Hook. var. *pulcherrima* (Lehm.) Fernald [1,1] A, T; 8160–11300'; **S**; mr, sf.
Potentilla norvegica L. ssp. *monspeiliensis* (L.) Asch. & Graebn. [3,6] A, C, T; 5781–10440'; **G, S**; fr, mc, ml, mr, ra.
 [Potentilla norvegica]
Potentilla pensylvanica L. var. *pensylvanica* [8,13] A, C, M, T; 6900–10700'; **P, S**; br, ds, mc, mm, mr, ra.

Potentilla plattensis Nutt. [UNM-J. Williams 31] T; S.

* *Potentilla recta* L. [UNM-J. McGrath 728] A; S.

Potentilla subviscosa Greene [-,1] C; 8400–8500'; S; pp.

Potentilla thurberi A. Gray var. *atrorubens* (Rydb.) Kearney & Peebles [4,-] A; 7720–8575'; S; mr, pp, ra.

Potentilla thurberi A. Gray var. *thurberi* [1,-] S; 7760'; S; mr.

* *Prunus americana* Marshall [-,2] R, T; 6540–7300'; G, S; ds, fr, ra.

Prunus virginiana L. var. *melanocarpa* (A. Nelson) Sarg. [29,14] A, M, S, T; 5800–9675'; L, P, S; br, fr, mc, mm, mr, ra, sf.

Rosa acicularis Lindl. var. *sayana* Erlanson [23,19] A, C, M, S, T; 5800–11500'; G, S; af, br, mc, mr, pp, ra, sf.

Rosa arkansana Porter var. *arkansana* [15,4] A, M, S, T; 7000–10200'; S; af, mc, ml, mm, mr, ra.

Rosa nutkana C. Presl [5,12] A, M, R, S, T; 7775–12000'; S; mc, mr, pp, sf.

[*Rosa nutkana* ssp. *melina* (Greene) W.H. Lewis & Ertter]

Rosa woodsii Lindl. var. *ultramontana* (S. Watson) Jeps. [4,9] A, M, T; 5800–10000'; L, S; br, fr, mc, mm, mr.

Rubus idaeus L. var. *aculeatissimus* Regel & Tiling [37,20] A, C, M, R, S, T; 7600–11940'; S; af, am, mc, mr, ra, sf.

[*Rubus idaeus* var. *strigosus* (Michx.) Maxim.]

Rubus deliciosus Torr. var. *neomexicanus* (A. Gray) Kearney [UNM-M. Schiebout 3706] A; S.

Rubus parviflorus Nutt. var. *parviflorus* [28,18] A, C, M, S, T; 7600–10880'; S; af, mc, mr, sf.

* *Sanguisorba minor* (Scopoli) ssp. *muricata* (Spach) Nordborg [UNM-C.R. Hutchins 9683] A; S.

Sibbaldia procumbens L. [4,11] A, M, R, S, T; 9600–13024'; S; am, mm, mr.

Sorbus dumosa Greene [1,-] M; 9760–10600'; S; mr.

Sorbus scopulina Greene var. *scopulina* [-,5] R, T; 7900–11500'; S; mr.

Rubiaceae

* *Galium aparine* L. var. *echinospermum* (Wallr.) Farw. [-,5] T; 7600–10500'; S; mc, mr, ra.

[*Galium aparine*]

Galium boreale L. [23,37] A, C, M, S, T; 7440–11150'; S; af, br, mc, ml, mm, mr, pj, ra, sf.

Galium fendleri A. Gray [7,-] A, S; 7900–8900'; S; mc.

Galium mexicanum Kunth var. *asperillum* (A. Gray) Higgins & S.L. Welsh [23,2] A, C, M, S, T; 7600–10500'; S; af, mc, mm, mr, sf.

Galium trifidum L. var. *subbiflorum* Wiegand [1,1] S, T; 8410–11050'; S; mr, sf.

Galium triflorum Michx. [13,6] A, M, S, T; 7620–11115'; S; mc, mm, mr, sf.

Houstonia acerosa (A. Gray) A. Gray ex Benth. & Hook. var. *polypremoides* (A. Gray) Terrell [1,-] A; 5700–5800'; L; pg, pj.

Houstonia rubra Cav. [3,-] A; 5650–5840'; L; pg, pj.

Stenaria nigricans (Lam.) Terrell var. *nigricans* [UNM-C.R. Hutchins 9948] S; S.

[*Hedyotis nigricans* (Lam.) Fosberg var. *nigricans*]

Rutaceae

Ptelea trifoliata L. [5,7] S, T; 5800–8000'; G, P, S; ds, fr, mr, pj, ra.

[*Ptelea trifoliata* *infrataxa*]

Salicaceae

× *Populus ×acuminata* Rydb. [2,2] R, S, T; 6380–7950'; G, S; fr, mr.

Populus angustifolia E. James [13,26] A, C, M, R, S, T; 6380–9400'; G, P, S; fr, mm, mr, ra.

Populus deltoides W. Bartram ex Marshall var. *wisliczenii* (S. Watson) Dorn [4,6] A, R, S, T; 5610–7100'; G, L, P, S; fr, pj, ra.

Populus tremuloides Michx. [41,44] A, C, M, R, S, T; 7000–12300'; S; af, br, mc, mm, mr, pj, pp, sf.

Salix arctica Pall. var. *petraea* (Andersson) Bebb [-,7] R, T; 11990–13161'; S; am.

♦ *Salix arizonica* Dorn [1,-] M; 10500'; S; mr.

Salix bebbiana Sarg. [14,7] A, M, R, S, T; 7750–10500'; S; mc, mr, ra, sf.

Salix brachycarpa Nutt. var. *brachycarpa* [1,6] M, T; 9800–11960'; S; am, mr.

Salix drummondiana Barratt ex Hook. [11,7] A, M, R, S, T; 8000–10850'; S; mr, sf.

Salix eriocephala Michx. var. *ligulifolia* (C.R. Ball) Dorn [8,4] A, M, R, S, T; 6450–8990'; G, S; fr, mc, ms, mr, pp.

Salix exigua Nutt. var. *exigua* [11,22] A, C, M, R, S, T; 5781–9300'; G, L, P, S; fr, ml, mr, pj, pp, ra.

* *Salix fragilis* L. [1,-] A; 5500'; L; fr.

Salix glauca L. var. *villosa* (D. Don ex Hook.) Andersson [-,1] T; 11529–11793'; S; am.

Salix gooddingii C.R. Ball [1,1] A, R; 5800–6540'; G, L; ds, fr, ra.

Salix irrorata Andersson [11,7] A, C, M, R, S, T; 6540–9100'; G, S; fr, mr, ms, pj.

Salix lasiandra Benth. var. *caudata* (Nutt.) Sudw. [-,2] R, T; 6380–7600'; G, S; fr, mr.

[*Salix lucida* Muhl. ssp. *caudata* (Nutt.) Murray]

Salix lasiandra Benth. var. *lasiandra* [5,1] A, S, T; 7850–10500'; S; mc, mr.

[*Salix lucida* Muhl. ssp. *lasiandra* (Benth.) Murray]

Salix monticola Bebb [5,3] A, M, T; 7200–10180'; S; ml, mm, mr.

Salix planifolia Pursh var. *planifolia* [4,3] M, S, T; 9200–12000'; S; am, mc, ml, mm, mr.

Salix reticulata L. var. *nana* Andersson [2,2] S, T; 11500–12430'; S; am.

[*Salix reticulata* ssp. *nivalis* (Hook.) Á. Löve, D. Löve, & B.M. Kapoor]

Salix scouleriana Barratt ex Hook. [8,8] A, M, S, T; 8000–10700'; S; br, mc, mr, sf.

Salix wolfii Bebb var. *wolfii* [UNM-D. Atwood 21490] A; S.

Santalaceae (Viscaceae)

Arceuthobium divaricatum Engelm. [1,4] R, S, T; 7000–8300'; S; pj.

Arceuthobium douglasii Engelm. [1,4] S, T; 7600–10093'; P, S; mc, pj.

Arceuthobium vaginatum (Willd.) J. Presl var. *cryptopodium* (Engelm.) Cronquist [-,7] C, R, T; 7600–8900'; S; br, pp.

Comandra umbellata (L.) Nutt. var. *pallida* (DC.) M.E. Jones [-,7] C, T; 7550–9675'; S; mc, pj, pp, ra.

Phoradendron juniperinum Engelm. ex A. Gray var. *juniperinum* [3,9] R, S, T; 6500–9400'; G, S; pj, pp.

Saururaceae

Anemopsis californica Hook. & Arn. [UNM- R.C. Sivinski 2471] A; S.

Saxifragaceae

Boykinia jamesii (Torr.) Engler [1,-] A; 10100–10200'; S; mc.

[*Telesonix jamesii* (Torr.) Raf.]

Heuchera parvifolia Nutt. ex Torr. & A. Gray [10,33] A, M, R, S, T; 7050–13024'; G, P, S; am, br, ds, mc, mm, mr, pj, pp, sf.

+ *Heuchera wootonii* Rydb. [UNM-E. Castetter & H. Dittmer 9825] T; S.

Mitella stauropetala Piper var. *stenopetala* (Piper) Rosend. [-,1] T; 10000–10850'; S; mr.

Saxifraga bronchialis L. var. *austromontana* (Wiegand) Piper ex G.N. Jones [20,23] A, C, M, R, S, T; 7750–13024'; S; am, mc, mm, mr, ra, sf.

♦ *Saxifraga cernua* L. [1,-] S; 11900–11940'; S; am.

Saxifraga chrysantha A. Gray [-,1] T; 12144–13009'; S; am.

Saxifraga debilis Engelm. ex A. Gray [UNM-H. Mackay 9T-3] T; S.

Saxifraga flagellaris Willd. ex Sternb. var. *crandallii* (Gand.) Dorn [-,3] T; 11500–13009'; S; am.

Saxifraga hirculus L. var. *hirculus* [UNM-T. Lowrey 2099] C; S.

Saxifraga odontoloma Piper [6,18] A, M, R, S, T; 8410–11960'; S; mc, mm, mr, sf.

[*Micranthes odontoloma* (Piper) A.A. Heller]

Saxifraga rhomboidea Greene [2,8] A, C, S, T; 9900–13009'; **S**; am, mc, ml, mr.

[*Micranthes rhomboidea* (Greene) Small]

Scrophulariaceae (see also Orobanchaceae, Plantaginaceae)

Scrophularia lanceolata Pursh [-,1] T; 7850–10500'; **S**; mc, mr.

+ *Scrophularia montana* Wootton [2,1] A, M, T; 8450–10660'; **S**; mm.

* *Verbascum thapsus* L. [19,15] A, C, M, R, S, T; 5570–10500'; **L, S**; af, br, fr, mc, ml, mr, pj, pp, ra.

Solanaceae

Chamaesaracha coronopus (Dunal) A. Gray [5,-] A; 5700–6200'; **L, S**; fr, pg, pj.

Chamaesaracha coniodes (Morici.) Britton [3,-] A; 5570–5800'; **L**; fr, pg, pj.

Datura wrightii Regel [1,-] A; 5500'; **L**; fr.

Lycium pallidum Miers [1,-] A; 5800–5840'; **L**; pj.

Nicotiana trigonophylla Dunal [1,-] A; 5600–5800'; **L**; pj.

Physalis hederifolia A. Gray var. *comata* (Rydb.) Waterf. [1,-] A; 5700–5800'; **L**; fr, ra.

Physalis hederifolia A. Gray var. *fendleri* (A. Gray) Cronquist [3,3] A, R, S, T; 6232–8000'; **G, S**; fr, pg, pj, ra.

Physalis longifolia Nutt. var. *longifolia* [1,-] A; 6980'; **S**; pp.

Physalis subulata Rydb. var. *neomexicana* (Rydb.) Waterf. ex Kartesz & Gandhi [3,1] A, S, T; 6840–7840'; **S**; fr, mr, ra.

[*Physalis foetens* Poir. var. *neomexicana* (Rydb.) Waterf. ex Kartesz & Gandhi]

Solanum elaeagnifolium Cav. [11,-] A; 5570–7000'; **L, S**; fr, mr, pg, pj, ra.

Solanum jamesii Torr. [UNM-Bamberg 60] A; **S**.

Solanum nigrum L. [UNM-H. Mackay 6T-58] T; **S**.

Solanum rostratum Dunal [2,-] A; 5500–5610'; **L**; fr.

Sparganiaceae

Sparganium emersum Rehmann [-,1] T; 9375–9675'; **S**; ml, mr.

Tamaricaceae

* *Tamarix chinensis* Lour. [2,8] A, R, T; 5500–8175'; **G, L, P, S**; fr, ml, ra.

Typhaceae

Typha latifolia L. [1,4] R, T; 6380–7660'; **G, S**; fr, ml, mr, ra.

Ulmaceae

* *Ulmus pumila* L. [13,11] A, R, S, T; 5800–8700'; **G, L, P, S**; fr, mr, pj, pp, ra.

Urticaceae

* *Urtica dioica* L. var. *procera* (Muhl. ex Willd.) Wedd. [18,22] A, C, M, R, S, T; 7400–11500'; **S**; mc, ml, mm, mr, ra, sf.
[*Urtica dioica* ssp. *gracilis* (Aiton) Selander]

Verbenaceae

Glandularia bipinnatifida (Nutt.) Nutt. var. *bipinnatifida* [16,-] A, S; 5600–7500'; **L, S**; mr, pg, pj.

Phyla cuneifolia (Torr.) Greene [1,-] A; 5500'; **L**; fr.

Verbena bracteata Lag. & Rodr. [8,4] A, C, S, T; 5500–9070'; **L, S**; br, fr, mc, mr, pj, pp, ra.

Verbena macdougalii A. Heller [23,8] A, C, M, S, T; 6840–10500'; **S**; af, fr, mc, ml, mr, pj, pp, ra.

Violaceae

Viola adunca J.E. Sm. [1,11] R, S, T; 8000–12850'; **S**; am, mc, mr, sf.

Viola canadensis L. [19,29] A, C, M, R, S, T; 7320–12000'; **S**; af, br, mc, mr, ra, sf.

Viola nephrophylla Greene [1,2] A, R, T; 7740–8700'; **S**; mr.

Vitaceae

Parthenocissus vitacea (Knerl) Hitchc. [7,5] A, R, S, T; 5610–7493'; **G, L, P, S**; fr, mr, pj, pp, ra.

Vitis arizonica Engelm. [3,1] A, T; 5610–6540'; **G, L**; fr, ra.

Zygophyllaceae

* *Tribulus terrestris* L. [3,-] A, S; 5610–7000'; **L, S**; fr, mr, ra.

ERRATUM

In the prior article (Reif et al. 2009), we incorrectly reported 3 collections of *Asclepias macrosperma*. These specimens are *A. macrotis*. A corrected checklist entry for this taxon appears below:

Asclepias macrotis Torr. [1,-,4,3] D,L,R; 5300–6900'; **G, P, U**; ds, fr, pj.

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